

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

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TestAmerica Job ID: 600-110761-1

Client Project/Site: CB&I Federal Services LLC . . – Houston

For:

CB&I Federal Services LLC

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Authorized for release by:

5/11/2015 5:40:03 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Case Narrative

Client: CB&I Federal Services LLC  
Project/Site: CB&I Federal Services LLC . . - Houston

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## Job ID: 600-110761-1

### Laboratory: TestAmerica Houston

#### Narrative

#### Job Narrative 600-110761-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 4/29/2015 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5° C.

Except:

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

#### GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 600-161354 recovered outside control limits for the following analytes: 2-Butanone and Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method(s) 8270C: The following sample was diluted due to the nature of the sample matrix: OT 25563-04292015 (600-110761-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following sample required a dilution due to the nature of the sample matrix: OT 25563-04292015 (600-110761-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C: Surrogate recovery for the following samples was outside control limits: VB 25147-04292015 (600-110761-1) and (600-110761-A-1-I MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C: The following samples was diluted due to the nature of the sample matrix: VB 25147-04292015 (600-110761-1) and (600-110761-A-1-I MS). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following sample required a dilution due to the nature of the sample matrix: VB 25147-04292015 (600-110761-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C: The following sample was diluted due to the nature of the sample matrix: VB 25147-04292015 (600-110761-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method(s) TX 1005: The following samples was diluted due to the nature of the sample matrix: VB 25147-04292015 (600-110761-1) and OT 25563-04292015 (600-110761-2). Elevated reporting limits (RLs) are provided.

Method(s) TX 1005: The following samples required a dilution due to the nature of the sample matrix: VB 25147-04292015 (600-110761-1) and OT 25563-04292015 (600-110761-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method(s) 6010B: The method blank for 245971 contained Na above the method detection limit. This target analyte concentration was

## Case Narrative

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . .– Houston

TestAmerica Job ID: 600-110761-1

### Job ID: 600-110761-1 (Continued)

#### Laboratory: TestAmerica Houston (Continued)

less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The method blank for Prep Batch 161428 contained Arsenic and Barium above the method detection limit. These target analytes concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The leachate blank for Prep Batch 161430 contained Silver, Barium, and Selenium above the method detection limit. These target analytes concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Geotechnical

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with 161557.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Method Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . .– Houston

TestAmerica Job ID: 600-110761-1

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL NSH
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU
7471A	Mercury (CVAA)	SW846	TAL HOU
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL HOU
7.4.4	Reactive Sulfide	EPA	TAL HOU
9012	Cyanide, Reactive	SW846	TAL HOU
9023	Organic Halides, Extractable (EOX)	SW846	TAL CAN
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL HOU
9040B	pH	SW846	TAL HOU
9045C	Corrosivity	SW846	TAL HOU
D1796	Water and Sediment in Fuel Oils	ASTM	TAL CC
D240-87	Heat of Combustion	ASTM	TAL HOU
D92	Flashpoint	ASTM	TAL HOU

## Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

## Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

## Sample Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . .– Houston

TestAmerica Job ID: 600-110761-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-110761-1	VB 25147-04292015	Waste	04/29/15 13:10	04/29/15 18:00
600-110761-2	OT 25563-04292015	Solid	04/29/15 13:37	04/29/15 18:00

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# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: VB 25147-04292015**

**Lab Sample ID: 600-110761-1**

**Matrix: Waste**

Date Collected: 04/29/15 13:10

Date Received: 04/29/15 18:00

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.98		5.00	0.830	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Benzene	0.782	J	2.50	0.315	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Chlorobromomethane	0.890	U	2.50	0.890	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Bromoform	0.685	U	2.50	0.685	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Bromomethane	0.415	U	5.00	0.415	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
2-Butanone (MEK)	0.950	U	5.00	0.950	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Carbon disulfide	0.275	U	5.00	0.275	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Carbon tetrachloride	0.565	U	2.50	0.565	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Dibromochloromethane	0.470	U	2.50	0.470	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Chlorobenzene	0.480	U	2.50	0.480	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Chloroethane	0.700	U	5.00	0.700	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Chloroform	0.330	U	2.50	0.330	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Chloromethane	0.830	U	5.00	0.830	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,1-Dichloroethane	0.435	U	2.50	0.435	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,2-Dichloroethane	0.450	U	2.50	0.450	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,1-Dichloroethene	0.610	U	2.50	0.610	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
cis-1,2-Dichloroethene	0.415	U	2.50	0.415	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
trans-1,2-Dichloroethene	0.570	U	2.50	0.570	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,2-Dichloropropane	0.355	U	2.50	0.355	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
cis-1,3-Dichloropropene	0.270	U	2.50	0.270	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
trans-1,3-Dichloropropene	0.290	U	2.50	0.290	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Ethylbenzene	14.2		2.50	0.510	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
2-Hexanone	0.505	U	5.00	0.505	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Methylene Chloride	1.10	U	5.00	1.10	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
4-Methyl-2-pentanone (MIBK)	0.735	U	5.00	0.735	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Styrene	0.579	J	2.50	0.355	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,1,2,2-Tetrachloroethane	0.435	U	2.50	0.435	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Tetrachloroethene	0.355	U	2.50	0.355	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Toluene	12.2		2.50	0.690	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,1,1-Trichloroethane	0.370	U	2.50	0.370	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,1,2-Trichloroethane	0.365	U	20.0	0.365	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Trichloroethene	0.700	U	2.50	0.700	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Vinyl acetate	0.465	U	5.00	0.465	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Vinyl chloride	0.450	U	5.00	0.450	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
o-Xylene	25.7		2.50	0.565	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
m-Xylene & p-Xylene	45.0		2.50	0.760	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Xylenes, Total	70.7		2.50	0.565	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
Bromodichloromethane	0.330	U	2.50	0.330	mg/Kg	05/01/15 10:30	05/01/15 18:15		1
1,2-Dichloroethene, Total	0.950	U	5.00	0.950	mg/Kg	05/01/15 10:30	05/01/15 18:15		1

## Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	112		50 - 130	05/01/15 10:30	05/01/15 18:15	1
Dibromofluoromethane	120		68 - 140	05/01/15 10:30	05/01/15 18:15	1
4-Bromofluorobenzene	123		57 - 140	05/01/15 10:30	05/01/15 18:15	1
1,2-Dichloroethane-d4 (Surr)	123		61 - 130	05/01/15 10:30	05/01/15 18:15	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0396	U	0.200	0.0396	mg/L		05/07/15 13:06		1
2-Butanone (MEK)	0.0434	U	0.200	0.0434	mg/L		05/07/15 13:06		1

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: VB 25147-04292015**

**Lab Sample ID: 600-110761-1**

**Matrix: Waste**

Date Collected: 04/29/15 13:10

Date Received: 04/29/15 18:00

## Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.0433	U	0.200	0.0433	mg/L			05/07/15 13:06	1
Chlorobenzene	0.0210	U	0.200	0.0210	mg/L			05/07/15 13:06	1
Chloroform	0.0403	U	0.200	0.0403	mg/L			05/07/15 13:06	1
1,2-Dichloroethane	0.0384	U	0.200	0.0384	mg/L			05/07/15 13:06	1
1,1-Dichloroethene	0.0426	U	0.200	0.0426	mg/L			05/07/15 13:06	1
Tetrachloroethylene	0.0330	U	0.200	0.0330	mg/L			05/07/15 13:06	1
Trichloroethylene	0.0320	U	0.200	0.0320	mg/L			05/07/15 13:06	1
Vinyl chloride	0.0516	U	0.200	0.0516	mg/L			05/07/15 13:06	1
<hr/>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	93		75 - 120					05/07/15 13:06	1
Dibromofluoromethane (Surr)	108		80 - 120					05/07/15 13:06	1
1,2-Dichloroethane-d4 (Surr)	95		62 - 123					05/07/15 13:06	1
Toluene-d8 (Surr)	86		80 - 120					05/07/15 13:06	1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	535	U	934	535	mg/Kg			05/05/15 10:46	10
Acenaphthylene	545	U	934	545	mg/Kg			05/05/15 10:46	10
Anthracene	587	U	934	587	mg/Kg			05/05/15 10:46	10
Benzidine	2330	U	9340	2330	mg/Kg			05/05/15 10:46	10
Benzo[a]anthracene	587	U	934	587	mg/Kg			05/05/15 10:46	10
Benzo[b]fluoranthene	54.7	U	934	54.7	mg/Kg			05/05/15 10:46	10
Benzo[k]fluoranthene	83.2	U	934	83.2	mg/Kg			05/05/15 10:46	10
Benzo[g,h,i]perylene	496	U	934	496	mg/Kg			05/05/15 10:46	10
Benzo[a]pyrene	524	U	934	524	mg/Kg			05/05/15 10:46	10
Bis(2-chloroethoxy)methane	527	U	934	527	mg/Kg			05/05/15 10:46	10
Bis(2-chloroethyl)ether	93.3	U	934	93.3	mg/Kg			05/05/15 10:46	10
Bis(2-ethylhexyl) phthalate	566	U	934	566	mg/Kg			05/05/15 10:46	10
4-Bromophenyl phenyl ether	566	U	934	566	mg/Kg			05/05/15 10:46	10
Butyl benzyl phthalate	568	U	934	568	mg/Kg			05/05/15 10:46	10
4-Chloroaniline	187	U	934	187	mg/Kg			05/05/15 10:46	10
2-Chloronaphthalene	608	U	934	608	mg/Kg			05/05/15 10:46	10
4-Chlorophenyl phenyl ether	562	U	934	562	mg/Kg			05/05/15 10:46	10
Carbazole	577	U	934	577	mg/Kg			05/05/15 10:46	10
Chrysene	571	U	934	571	mg/Kg			05/05/15 10:46	10
Di-n-butyl phthalate	603	U	934	603	mg/Kg			05/05/15 10:46	10
Dibenzo(a,h)anthracene	537	U	934	537	mg/Kg			05/05/15 10:46	10
Dibenzofuran	557	U	934	557	mg/Kg			05/05/15 10:46	10
1,2-Dichlorobenzene	74.4	U	934	74.4	mg/Kg			05/05/15 10:46	10
1,3-Dichlorobenzene	504	U	934	504	mg/Kg			05/05/15 10:46	10
1,4-Dichlorobenzene	65.3	U	934	65.3	mg/Kg			05/05/15 10:46	10
3,3'-Dichlorobenzidine	180	U	1870	180	mg/Kg			05/05/15 10:46	10
Diethyl phthalate	578	U	934	578	mg/Kg			05/05/15 10:46	10
Dimethyl phthalate	565	U	934	565	mg/Kg			05/05/15 10:46	10
2,4-Dinitrotoluene	93.1	U	934	93.1	mg/Kg			05/05/15 10:46	10
2,6-Dinitrotoluene	593	U	934	593	mg/Kg			05/05/15 10:46	10
Di-n-octyl phthalate	604	U	934	604	mg/Kg			05/05/15 10:46	10
Fluoranthene	597	U	934	597	mg/Kg			05/05/15 10:46	10
Fluorene	575	U	934	575	mg/Kg			05/05/15 10:46	10

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: VB 25147-04292015**

**Lab Sample ID: 600-110761-1**

**Matrix: Waste**

Date Collected: 04/29/15 13:10

Date Received: 04/29/15 18:00

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	589	U	934	589	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Hexachlorocyclopentadiene	63.0	U	934	63.0	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Hexachloroethane	84.7	U	934	84.7	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Hexachlorobutadiene	96.0	U	934	96.0	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Indeno[1,2,3-cd]pyrene	512	U	934	512	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Isophorone	549	U	934	549	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2-Methylnaphthalene	535	U	934	535	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Naphthalene	54.6	U	934	54.6	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2-Nitroaniline	551	U	4530	551	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
3-Nitroaniline	599	U	4530	599	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
4-Nitroaniline	511	U	4530	511	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Nitrobenzene	134	U	934	134	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
N-Nitrosodimethylamine	270	U	934	270	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
N-Nitrosodiphenylamine	89.2	U	934	89.2	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
N-Nitrosodi-n-propylamine	80.9	U	934	80.9	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Phenanthrene	575	U	934	575	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Pyrene	625	U	934	625	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
1,2,4-Trichlorobenzene	596	U	934	596	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Benzyl alcohol	176	U	934	176	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
4-Chloro-3-methylphenol	544	U	934	544	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2-Chlorophenol	65.9	U	934	65.9	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2-Methylphenol	107	U	934	107	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
3 & 4 Methylphenol	85.1	U	1870	85.1	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2,4-Dichlorophenol	517	U	934	517	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2,4-Dimethylphenol	180	U	934	180	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
4,6-Dinitro-2-methylphenol	585	U	4530	585	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2,4-Dinitrophenol	362	U	4530	362	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2-Nitrophenol	509	U	934	509	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
4-Nitrophenol	509	U	4530	509	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Pentachlorophenol	62.6	U	4530	62.6	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
Phenol	106	U	934	106	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2,4,5-Trichlorophenol	176	U	934	176	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
2,4,6-Trichlorophenol	510	U	934	510	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	
bis (2-Chloroisopropyl) ether	98.0	U	934	98.0	mg/Kg	05/05/15 10:46	05/06/15 10:47	10	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	46 - 130	05/05/15 10:46	05/06/15 10:47	10
2-Fluorophenol	0	X	45 - 130	05/05/15 10:46	05/06/15 10:47	10
2-Fluorobiphenyl	0	X	42 - 130	05/05/15 10:46	05/06/15 10:47	10
2,4,6-Tribromophenol	0	X	25 - 130	05/05/15 10:46	05/06/15 10:47	10
Terphenyl-d14	0	X	51 - 130	05/05/15 10:46	05/06/15 10:47	10
Phenol-d5 (Surr)	0	X	48 - 130	05/05/15 10:46	05/06/15 10:47	10

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0890	U	0.500	0.0890	mg/L	05/04/15 08:47	05/05/15 12:22	10	
2,4-Dinitrotoluene	0.132	U	0.500	0.132	mg/L	05/04/15 08:47	05/05/15 12:22	10	
2,4,5-Trichlorophenol	0.136	U	0.500	0.136	mg/L	05/04/15 08:47	05/05/15 12:22	10	
2,4,6-Trichlorophenol	0.129	U	0.500	0.129	mg/L	05/04/15 08:47	05/05/15 12:22	10	
<b>2-Methylphenol</b>	<b>0.382</b>	<b>J</b>	0.500	0.0905	mg/L	05/04/15 08:47	05/05/15 12:22	10	

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: VB 25147-04292015**

**Lab Sample ID: 600-110761-1**

**Matrix: Waste**

Date Collected: 04/29/15 13:10

Date Received: 04/29/15 18:00

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>3 &amp; 4 Methylphenol</b>	<b>0.415</b> J		1.00	0.0940	mg/L		05/04/15 08:47	05/05/15 12:22	10
Hexachlorobenzene	0.130	U	0.500	0.130	mg/L		05/04/15 08:47	05/05/15 12:22	10
Hexachlorobutadiene	0.106	U	0.500	0.106	mg/L		05/04/15 08:47	05/05/15 12:22	10
Hexachloroethane	0.110	U F1	0.500	0.110	mg/L		05/04/15 08:47	05/05/15 12:22	10
Nitrobenzene	0.124	U F1	0.500	0.124	mg/L		05/04/15 08:47	05/05/15 12:22	10
Pentachlorophenol	0.231	U F1	2.50	0.231	mg/L		05/04/15 08:47	05/05/15 12:22	10
Pyridine	0.108	U F1	0.500	0.108	mg/L		05/04/15 08:47	05/05/15 12:22	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Nitrobenzene-d5</i>	131	X	35 - 130				05/04/15 08:47	05/05/15 12:22	10
<i>2-Fluorophenol</i>	78		10 - 130				05/04/15 08:47	05/05/15 12:22	10
<i>2-Fluorobiphenyl</i>	103		41 - 130				05/04/15 08:47	05/05/15 12:22	10
<i>2,4,6-Tribromophenol</i>	107		12 - 138				05/04/15 08:47	05/05/15 12:22	10
<i>Terphenyl-d14</i>	101		43 - 130				05/04/15 08:47	05/05/15 12:22	10
<i>Phenol-d5 (Surr)</i>	0	X	10 - 130				05/04/15 08:47	05/05/15 12:22	10

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C6-C12</b>	<b>2880</b>		500	190	mg/Kg		05/01/15 10:58	05/01/15 17:19	50
<b>&gt;C12-C28</b>	<b>21700</b>		500	203	mg/Kg		05/01/15 10:58	05/01/15 17:19	50
<b>&gt;C28-C35</b>	<b>7510</b>		500	203	mg/Kg		05/01/15 10:58	05/01/15 17:19	50
<b>C6-C35</b>	<b>32100</b>		500	190	mg/Kg		05/01/15 10:58	05/01/15 17:19	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	0	X	70 - 130				05/01/15 10:58	05/01/15 17:19	50

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.889	U	1.98	0.889	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
<b>Barium</b>	<b>9.51</b>		1.98	1.58	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
Cadmium	0.0988	U	0.988	0.0988	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
<b>Chromium</b>	<b>0.830</b> J		0.988	0.593	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
<b>Lead</b>	<b>0.870</b> J		0.988	0.494	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
Selenium	0.988	U	1.98	0.988	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
Silver	0.494	U	0.988	0.494	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
<b>Sodium</b>	<b>5030</b> B		198	98.8	mg/Kg		05/05/15 14:50	05/06/15 11:00	1
<b>Sulfur</b>	<b>1010</b>		49.4	19.8	mg/Kg		05/05/15 14:50	05/06/15 11:00	1

## Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0328	U	0.100	0.0328	mg/L		05/01/15 12:32	05/04/15 12:40	1
<b>Barium</b>	<b>0.255</b> B		0.200	0.0220	mg/L		05/01/15 12:32	05/04/15 12:40	1
Cadmium	0.00350	U	0.0500	0.00350	mg/L		05/01/15 12:32	05/04/15 12:40	1
Chromium	0.0155	U	0.100	0.0155	mg/L		05/01/15 12:32	05/04/15 12:40	1
Lead	0.0290	U	0.100	0.0290	mg/L		05/01/15 12:32	05/04/15 12:40	1
<b>Selenium</b>	<b>0.0460</b> J		0.400	0.0417	mg/L		05/01/15 12:32	05/04/15 12:40	1
Silver	0.0125	U	0.100	0.0125	mg/L		05/01/15 12:32	05/04/15 12:40	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000820	U	0.00200	0.000820	mg/L		05/04/15 08:20	05/04/15 12:56	1

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.256		0.0162	0.00341	mg/Kg	D	05/07/15 07:42	05/07/15 10:18	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>186		1.00	1.00	Degrees F			05/05/15 11:00	1
Cyanide, Reactive	0.0848	U	0.248	0.0848	mg/Kg		05/05/15 07:50	05/05/15 16:45	1
Halogens, Extractable Organic	83.4	J	205	34.9	mg/Kg		05/06/15 05:29	05/06/15 09:39	1
Sulfide, Reactive	13.9	U	49.6	13.9	mg/Kg		05/05/15 07:50	05/06/15 11:18	1
pH	6.82		0.0100	0.0100	SU			05/06/15 13:15	1
Percent Water	94.0				%			05/06/15 14:30	1
BTU	500	U	500	500	BTU/lb			05/06/15 13:15	1

Client Sample ID: OT 25563-04292015

Lab Sample ID: 600-110761-2

Date Collected: 04/29/15 13:37

Matrix: Solid

Date Received: 04/29/15 18:00

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0333	*	0.00971	0.00161	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Benzene	0.000612	U	0.00485	0.000612	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Bromodichloromethane	0.000641	U	0.00485	0.000641	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Bromoform	0.00133	U	0.00485	0.00133	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Bromomethane	0.000806	U	0.00971	0.000806	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
2-Butanone (MEK)	0.00184	U *	0.00971	0.00184	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Carbon disulfide	0.00296	J	0.00971	0.000534	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Carbon tetrachloride	0.00110	U	0.00485	0.00110	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Chlorobenzene	0.000932	U	0.00485	0.000932	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Chlorobromomethane	0.00173	U	0.00485	0.00173	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Chloroethane	0.00136	U	0.00971	0.00136	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Chloroform	0.00372	J	0.00485	0.000641	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Chloromethane	0.00161	U	0.00971	0.00161	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
cis-1,2-Dichloroethene	0.000806	U	0.00485	0.000806	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
cis-1,3-Dichloropropene	0.000524	U	0.00485	0.000524	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Dibromochloromethane	0.000913	U	0.00485	0.000913	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,1-Dichloroethane	0.000845	U	0.00485	0.000845	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,2-Dichloroethane	0.000874	U	0.00485	0.000874	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,1-Dichloroethene	0.00118	U	0.00485	0.00118	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,2-Dichloroethene, Total	0.00184	U	0.00971	0.00184	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,2-Dichloropropane	0.000689	U	0.00485	0.000689	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Ethylbenzene	0.000990	U	0.00485	0.000990	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
2-Hexanone	0.0102		0.00971	0.000981	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Methylene Chloride	0.00213	U	0.00971	0.00213	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
4-Methyl-2-pentanone (MIBK)	0.00143	U	0.00971	0.00143	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
m-Xylene & p-Xylene	0.00148	U	0.00485	0.00148	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
o-Xylene	0.00124	J	0.00485	0.00110	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Styrene	0.000689	U	0.00485	0.000689	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,1,2,2-Tetrachloroethane	0.000845	U	0.00485	0.000845	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Tetrachloroethene	0.000689	U	0.00485	0.000689	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Toluene	0.00134	U	0.00485	0.00134	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
trans-1,2-Dichloroethene	0.00111	U	0.00485	0.00111	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
trans-1,3-Dichloropropene	0.000563	U	0.00485	0.000563	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,1,1-Trichloroethane	0.000718	U	0.00485	0.000718	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
1,1,2-Trichloroethane	0.000709	U	0.0388	0.000709	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Trichloroethene	0.00136	U	0.00485	0.00136	mg/Kg		04/30/15 11:18	04/30/15 16:05	1

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: OT 25563-04292015**

**Lab Sample ID: 600-110761-2**

**Matrix: Solid**

Date Collected: 04/29/15 13:37

Date Received: 04/29/15 18:00

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	0.000903	U	0.00971	0.000903	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Vinyl chloride	0.000874	U	0.00971	0.000874	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
<b>Xylenes, Total</b>	<b>0.00124</b>	<b>J</b>	0.00485	0.00110	mg/Kg		04/30/15 11:18	04/30/15 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		57 - 140				04/30/15 11:18	04/30/15 16:05	1
Dibromofluoromethane	92		68 - 140				04/30/15 11:18	04/30/15 16:05	1
1,2-Dichloroethane-d4 (Surr)	90		61 - 130				04/30/15 11:18	04/30/15 16:05	1
Toluene-d8 (Surr)	107		50 - 130				04/30/15 11:18	04/30/15 16:05	1

## Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.0426	U	0.200	0.0426	mg/L		05/07/15 12:38	1	
1,2-Dichloroethane	0.0384	U	0.200	0.0384	mg/L		05/07/15 12:38	1	
2-Butanone (MEK)	0.0434	U	0.200	0.0434	mg/L		05/07/15 12:38	1	
Benzene	0.0396	U	0.200	0.0396	mg/L		05/07/15 12:38	1	
Carbon tetrachloride	0.0433	U	0.200	0.0433	mg/L		05/07/15 12:38	1	
Chlorobenzene	0.0210	U	0.200	0.0210	mg/L		05/07/15 12:38	1	
Chloroform	0.0403	U	0.200	0.0403	mg/L		05/07/15 12:38	1	
Tetrachloroethylene	0.0330	U	0.200	0.0330	mg/L		05/07/15 12:38	1	
Trichloroethylene	0.0320	U	0.200	0.0320	mg/L		05/07/15 12:38	1	
Vinyl chloride	0.0516	U	0.200	0.0516	mg/L		05/07/15 12:38	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		80 - 120				05/07/15 12:38	1	
1,2-Dichloroethane-d4 (Surr)	88		62 - 123				05/07/15 12:38	1	
4-Bromofluorobenzene (Surr)	88		75 - 120				05/07/15 12:38	1	
Dibromofluoromethane (Surr)	107		80 - 120				05/07/15 12:38	1	

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	11.3	U	19.8	11.3	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Acenaphthylene	11.5	U	19.8	11.5	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Anthracene	12.4	U	19.8	12.4	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Benzidine	0.540	U	95.8	0.540	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Benzo[a]anthracene	12.4	U	19.8	12.4	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Benzo[b]fluoranthene	1.16	U	19.8	1.16	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Benzo[k]fluoranthene	1.76	U	19.8	1.76	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Benzo[g,h,i]perylene	10.5	U	19.8	10.5	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Benzo[a]pyrene	11.1	U	19.8	11.1	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Bis(2-chloroethoxy)methane	11.1	U	19.8	11.1	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Bis(2-chloroethyl)ether	1.97	U	19.8	1.97	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
<b>Bis(2-ethylhexyl) phthalate</b>	<b>22.1</b>		19.8	12.0	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
4-Bromophenyl phenyl ether	12.0	U	19.8	12.0	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Butyl benzyl phthalate	12.0	U	19.8	12.0	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
4-Chloroaniline	3.95	U	19.8	3.95	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
2-Chloronaphthalene	12.9	U	19.8	12.9	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
4-Chlorophenyl phenyl ether	11.9	U	19.8	11.9	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Carbazole	12.2	U	19.8	12.2	mg/Kg		05/01/15 11:21	05/04/15 14:05	20
Chrysene	12.1	U	19.8	12.1	mg/Kg		05/01/15 11:21	05/04/15 14:05	20

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: OT 25563-04292015**

**Lab Sample ID: 600-110761-2**

Date Collected: 04/29/15 13:37

Matrix: Solid

Date Received: 04/29/15 18:00

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	12.8	U	19.8	12.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	1
Dibenz(a,h)anthracene	11.4	U	19.8	11.4	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	2
Dibenzofuran	11.8	U	19.8	11.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	3
1,2-Dichlorobenzene	1.57	U	19.8	1.57	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	4
1,3-Dichlorobenzene	10.7	U	19.8	10.7	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	5
1,4-Dichlorobenzene	1.38	U	19.8	1.38	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	6
3,3'-Dichlorobenzidine	3.81	U	39.5	3.81	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	7
Diethyl phthalate	12.2	U	19.8	12.2	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	8
Dimethyl phthalate	12.0	U	19.8	12.0	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	9
2,4-Dinitrotoluene	1.97	U	19.8	1.97	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	10
2,6-Dinitrotoluene	12.6	U	19.8	12.6	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	11
Di-n-octyl phthalate	12.8	U	19.8	12.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	12
Fluoranthene	12.6	U	19.8	12.6	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	13
Fluorene	12.2	U	19.8	12.2	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	14
Hexachlorobenzene	12.5	U	19.8	12.5	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	15
Hexachlorocyclopentadiene	1.33	U	19.8	1.33	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	16
Hexachloroethane	1.79	U	19.8	1.79	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	17
Hexachlorobutadiene	2.03	U	19.8	2.03	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	18
Indeno[1,2,3-cd]pyrene	10.8	U	19.8	10.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	19
Isophorone	11.6	U	19.8	11.6	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	20
2-Methylnaphthalene	11.3	U	19.8	11.3	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	21
Naphthalene	1.16	U	19.8	1.16	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	22
2-Nitroaniline	11.7	U	95.8	11.7	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	23
3-Nitroaniline	12.7	U	95.8	12.7	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	24
4-Nitroaniline	10.8	U	95.8	10.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	25
Nitrobenzene	2.84	U	19.8	2.84	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	26
N-Nitrosodimethylamine	5.72	U	19.8	5.72	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	27
N-Nitrosodiphenylamine	1.89	U	19.8	1.89	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	28
N-Nitrosodi-n-propylamine	1.71	U	19.8	1.71	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	29
Phenanthrene	12.2	U	19.8	12.2	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	30
Pyrene	13.2	U	19.8	13.2	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	31
1,2,4-Trichlorobenzene	12.6	U	19.8	12.6	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	32
Benzyl alcohol	3.73	U	19.8	3.73	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	33
4-Chloro-3-methylphenol	11.5	U	19.8	11.5	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	34
2-Chlorophenol	1.40	U	19.8	1.40	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	35
2-Methylphenol	2.27	U	19.8	2.27	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	36
3 & 4 Methylphenol	1.80	U	39.5	1.80	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	37
2,4-Dichlorophenol	10.9	U	19.8	10.9	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	38
2,4-Dimethylphenol	3.81	U	19.8	3.81	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	39
4,6-Dinitro-2-methylphenol	12.4	U	95.8	12.4	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	40
2,4-Dinitrophenol	7.66	U	95.8	7.66	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	41
2-Nitrophenol	10.8	U	19.8	10.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	42
4-Nitrophenol	10.8	U	95.8	10.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	43
Pentachlorophenol	1.32	U	95.8	1.32	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	44
Phenol	2.24	U	19.8	2.24	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	45
2,4,5-Trichlorophenol	3.72	U	19.8	3.72	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	46
2,4,6-Trichlorophenol	10.8	U	19.8	10.8	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	47
bis (2-Chloroisopropyl) ether	2.07	U	19.8	2.07	mg/Kg	05/01/15 11:21	05/04/15 14:05	20	48

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: OT 25563-04292015**

**Lab Sample ID: 600-110761-2**

**Matrix: Solid**

Date Collected: 04/29/15 13:37

Date Received: 04/29/15 18:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	0	X	10 - 150	05/01/15 11:21	05/04/15 14:05	20
2-Fluorophenol	0	X	25 - 132	05/01/15 11:21	05/04/15 14:05	20
2-Fluorobiphenyl	0	X	38 - 130	05/01/15 11:21	05/04/15 14:05	20
2,4,6-Tribromophenol	0	X	10 - 148	05/01/15 11:21	05/04/15 14:05	20
Terphenyl-d14	0	X	53 - 134	05/01/15 11:21	05/04/15 14:05	20
Phenol-d5 (Surr)	0	X	27 - 123	05/01/15 11:21	05/04/15 14:05	20

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890	mg/L	D	05/04/15 08:47	05/05/15 13:26	1
2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132	mg/L		05/04/15 08:47	05/05/15 13:26	1
2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136	mg/L		05/04/15 08:47	05/05/15 13:26	1
2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129	mg/L		05/04/15 08:47	05/05/15 13:26	1
2-Methylphenol	0.00905	U	0.0500	0.00905	mg/L		05/04/15 08:47	05/05/15 13:26	1
3 & 4 Methylphenol	0.00940	U	0.100	0.00940	mg/L		05/04/15 08:47	05/05/15 13:26	1
Hexachlorobenzene	0.0130	U	0.0500	0.0130	mg/L		05/04/15 08:47	05/05/15 13:26	1
Hexachlorobutadiene	0.0106	U	0.0500	0.0106	mg/L		05/04/15 08:47	05/05/15 13:26	1
Hexachloroethane	0.0110	U	0.0500	0.0110	mg/L		05/04/15 08:47	05/05/15 13:26	1
Nitrobenzene	0.0124	U	0.0500	0.0124	mg/L		05/04/15 08:47	05/05/15 13:26	1
Pentachlorophenol	0.0231	U	0.250	0.0231	mg/L		05/04/15 08:47	05/05/15 13:26	1
Pyridine	0.0108	U	0.0500	0.0108	mg/L		05/04/15 08:47	05/05/15 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	50		10 - 130	05/04/15 08:47	05/05/15 13:26	1
Nitrobenzene-d5	71		35 - 130	05/04/15 08:47	05/05/15 13:26	1
2-Fluorophenol	60		10 - 130	05/04/15 08:47	05/05/15 13:26	1
2-Fluorobiphenyl	67		41 - 130	05/04/15 08:47	05/05/15 13:26	1
2,4,6-Tribromophenol	73		12 - 138	05/04/15 08:47	05/05/15 13:26	1
Terphenyl-d14	74		43 - 130	05/04/15 08:47	05/05/15 13:26	1

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	189	U	499	189	mg/Kg	D	05/01/15 10:58	05/01/15 17:51	50
>C12-C28	12100		499	202	mg/Kg		05/01/15 10:58	05/01/15 17:51	50
>C28-C35	19400		499	202	mg/Kg		05/01/15 10:58	05/01/15 17:51	50
C6-C35	31500		499	189	mg/Kg		05/01/15 10:58	05/01/15 17:51	50

  

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	0	X	70 - 130	05/01/15 10:58	05/01/15 17:51	50

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.57		2.00	0.902	mg/Kg	D	05/05/15 14:50	05/06/15 10:38	1
Barium	315		2.00	1.60	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Cadmium	0.882	J	1.00	0.100	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Chromium	69.9		1.00	0.601	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Lead	42.1	F1	1.00	0.501	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Selenium	1.00	U	2.00	1.00	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Silver	1.76		1.00	0.501	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Sodium	2000	B	200	100	mg/Kg		05/05/15 14:50	05/06/15 10:38	1
Sulfur	11200	F2	50.1	20.0	mg/Kg		05/05/15 14:50	05/06/15 10:38	1

TestAmerica Houston

# Client Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: OT 25563-04292015**

**Lab Sample ID: 600-110761-2**

**Matrix: Solid**

Date Collected: 04/29/15 13:37

Date Received: 04/29/15 18:00

## Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0125	U	0.100	0.0125	mg/L		05/01/15 12:32	05/04/15 13:10	1
Arsenic	<b>0.0570</b>	J	0.100	0.0328	mg/L		05/01/15 12:32	05/04/15 13:10	1
Barium	<b>0.887</b>	B	0.200	0.0220	mg/L		05/01/15 12:32	05/04/15 13:10	1
Cadmium	0.00350	U	0.0500	0.00350	mg/L		05/01/15 12:32	05/04/15 13:10	1
Chromium	0.0155	U	0.100	0.0155	mg/L		05/01/15 12:32	05/04/15 13:10	1
Lead	0.0290	U	0.100	0.0290	mg/L		05/01/15 12:32	05/04/15 13:10	1
Selenium	0.0417	U	0.400	0.0417	mg/L		05/01/15 12:32	05/04/15 13:10	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/04/15 08:20	05/04/15 13:11	1

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>1.69</b>		0.170	0.0358	mg/Kg		05/06/15 09:43	05/06/15 11:29	10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	13.9	U	49.7	13.9	mg/Kg		05/05/15 07:50	05/06/15 11:18	1
Cyanide, Reactive	0.0850	U	0.249	0.0850	mg/Kg		05/05/15 07:50	05/05/15 16:45	1
Halogens, Extractable Organic	<b>162</b>	J	203	34.5	mg/Kg		05/06/15 05:30	05/06/15 09:52	1
pH	<b>7.09</b>		0.0100	0.0100	SU			05/06/15 13:15	1
Percent Water	<b>0.000</b>				%			05/06/15 14:30	1
Flashpoint	<b>&gt;212</b>		1.00	1.00	Degrees F			05/05/15 11:00	1

# Definitions/Glossary

Client: CB&I Federal Services LLC  
Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

### GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
U	Indicates the analyte was analyzed for but not detected.

### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

## Definitions/Glossary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . .– Houston

TestAmerica Job ID: 600-110761-1

### Glossary (Continued)

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

1

2

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4

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10

11

12

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14

# Surrogate Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (57-140)	DBFM (68-140)	12DCE (61-130)	TOL (50-130)
600-110761-2	OT 25563-04292015	104	92	90	107
LCS 600-161354/3	Lab Control Sample	99	87	74	106
LCSD 600-161354/4	Lab Control Sample Dup	82	85	77	99
MB 600-161354/6	Method Blank	101	87	82	103

### Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (62-123)	TOL (80-120)	BFB (75-120)	DBFM (80-120)
LCS 180-140820/10	Lab Control Sample	99	90	95	111

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)	12DCE (62-123)	BFB (75-120)	DBFM (80-120)
600-110761-2	OT 25563-04292015	93	88	88	107
LB 180-140697/2-A	Method Blank	86	82	81	105

### Surrogate Legend

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Waste

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (50-130)	DBFM (68-140)	BFB (57-140)	12DCE (61-130)
600-110761-1	VB 25147-04292015	112	120	123	123
LCS 600-161469/1-A	Lab Control Sample	114	112	107	115
LCSD 600-161469/2-A	Lab Control Sample Dup	111	111	107	116
MB 600-161469/3-A	Method Blank	112	104	100	111

TestAmerica Houston

# Surrogate Summary

Client: CB&I Federal Services LLC  
 Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Surrogate Legend

TOL = Toluene-d8 (Surr)  
 DBFM = Dibromofluoromethane  
 BFB = 4-Bromofluorobenzene  
 12DCE = 1,2-Dichloroethane-d4 (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Waste

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-120)	DBFM (80-120)	12DCE (62-123)	TOL (80-120)
600-110761-1	VB 25147-04292015	93	108	95	86
600-110761-1 MS	VB 25147-04292015	86	103	87	86
600-110761-1 MSD	VB 25147-04292015	85	101	78	86

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane (Surr)  
 12DCE = 1,2-Dichloroethane-d4 (Surr)  
 TOL = Toluene-d8 (Surr)

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (10-150)	2FP (25-132)	FBP (38-130)	TBP (10-148)	TPH (53-134)	PHL (27-123)
600-110761-2	OT 25563-04292015	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-161476/2-A	Lab Control Sample	73	72	82	79	89	74
MB 600-161476/1-A	Method Blank	71	73	80	69	91	65

## Surrogate Legend

NBZ = Nitrobenzene-d5  
 2FP = 2-Fluorophenol  
 FBP = 2-Fluorobiphenyl  
 TBP = 2,4,6-Tribromophenol  
 TPH = Terphenyl-d14  
 PHL = Phenol-d5 (Surr)

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		NBZ (35-130)	2FP (10-130)	FBP (41-130)	TBP (12-138)	TPH (43-130)	PHL (10-130)	PHL (10-130)
LCS 600-161557/2-A	Lab Control Sample	91	88	91	81	103	90	90
MB 600-161557/1-A	Method Blank	91	88	91	72	106	78	78

## Surrogate Legend

NBZ = Nitrobenzene-d5  
 2FP = 2-Fluorophenol  
 FBP = 2-Fluorobiphenyl  
 TBP = 2,4,6-Tribromophenol  
 TPH = Terphenyl-d14  
 PHL = Phenol-d5 (Surr)

TestAmerica Houston

# Surrogate Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-130)	NBZ (35-130)	2FP (10-130)	FBP (41-130)	TBP (12-138)	TPH (43-130)
600-110761-2	OT 25563-04292015	50	71	60	67	73	74
600-110761-2 MS	OT 25563-04292015	82	94	93	92	97	97
LB 600-161430/1-D	Method Blank	46	79	65	74	71	90

### Surrogate Legend

PHL = Phenol-d5

NBZ = Nitrobenzene-d5

2FP = 2-Fluorophenol

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPH = Terphenyl-d14

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Waste

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (46-130)	2FP (45-130)	FBP (42-130)	TBP (25-130)	TPH (51-130)	PHL (48-130)
600-110761-1	VB 25147-04292015	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-161646/2-A	Lab Control Sample	93	100	90	98	98	96
MB 600-161646/1-A	Method Blank	97	101	88	85	96	93

### Surrogate Legend

NBZ = Nitrobenzene-d5

2FP = 2-Fluorophenol

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPH = Terphenyl-d14

PHL = Phenol-d5 (Surr)

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Waste

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (35-130)	2FP (10-130)	FBP (41-130)	TBP (12-138)	TPH (43-130)	PHL (10-130)
600-110761-1	VB 25147-04292015	131 X	78	103	107	101	0 X
600-110761-1 MS	VB 25147-04292015	133 X	79	106	101	98	0 X
LB 600-161428/1-E	Method Blank	80	66	75	77	94	47

### Surrogate Legend

NBZ = Nitrobenzene-d5

2FP = 2-Fluorophenol

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPH = Terphenyl-d14

PHL = Phenol-d5 (Surr)

TestAmerica Houston

## Surrogate Summary

Client: CB&I Federal Services LLC  
Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

## **Matrix: Solid**

### **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTPH (70-130)	
600-110761-2 - DL	OT 25563-04292015	0 X	
LCS 600-161473/2-A	Lab Control Sample	98	
LCSD 600-161473/3-A	Lab Control Sample Dup	110	
MB 600-161473/1-A	Method Blank	96	

## Surrogate Legend

OTPH = o-Terphenyl

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

## Matrix: Waste

## Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH (70-130)					
600-110761-1 - DL	VB 25147-04292015	0 X					

## Surrogate Legend

OTPH = o-Terphenyl

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: LCS 180-140820/10**

**Matrix: Solid**

**Analysis Batch: 140820**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
2-Butanone (MEK)	0.400	0.3901		mg/L	98	31 - 139	
Benzene	0.400	0.4120		mg/L	103	80 - 120	
Carbon tetrachloride	0.400	0.4368		mg/L	109	63 - 139	
Chlorobenzene	0.400	0.3916		mg/L	98	83 - 120	
Chloroform	0.400	0.4239		mg/L	106	77 - 119	
1,2-Dichloroethane	0.400	0.3989		mg/L	100	63 - 140	
1,1-Dichloroethene	0.400	0.3999		mg/L	100	69 - 127	
Tetrachloroethylene	0.400	0.3815		mg/L	95	78 - 126	
Trichloroethylene	0.400	0.4666		mg/L	117	80 - 120	
Vinyl chloride	0.400	0.3389		mg/L	85	57 - 128	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		62 - 123
Toluene-d8 (Surr)	90		80 - 120
4-Bromofluorobenzene (Surr)	95		75 - 120
Dibromofluoromethane (Surr)	111		80 - 120

**Lab Sample ID: MB 600-161354/6**

**Matrix: Solid**

**Analysis Batch: 161354**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00166	U	0.0100	0.00166	mg/Kg		04/30/15 11:53		1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg		04/30/15 11:53		1
Bromoform	0.00137	U	0.00500	0.00137	mg/Kg		04/30/15 11:53		1
Bromomethane	0.000830	U	0.0100	0.000830	mg/Kg		04/30/15 11:53		1
2-Butanone (MEK)	0.00190	U	0.0100	0.00190	mg/Kg		04/30/15 11:53		1
Carbon disulfide	0.000550	U	0.0100	0.000550	mg/Kg		04/30/15 11:53		1
Carbon tetrachloride	0.00113	U	0.00500	0.00113	mg/Kg		04/30/15 11:53		1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg		04/30/15 11:53		1
Chlorobromomethane	0.00178	U	0.00500	0.00178	mg/Kg		04/30/15 11:53		1
Chloroethane	0.00140	U	0.0100	0.00140	mg/Kg		04/30/15 11:53		1
Chloroform	0.000660	U	0.00500	0.000660	mg/Kg		04/30/15 11:53		1
Chloromethane	0.00166	U	0.0100	0.00166	mg/Kg		04/30/15 11:53		1
cis-1,2-Dichloroethene	0.000830	U	0.00500	0.000830	mg/Kg		04/30/15 11:53		1
Dibromochloromethane	0.000940	U	0.00500	0.000940	mg/Kg		04/30/15 11:53		1
1,1-Dichloroethane	0.000870	U	0.00500	0.000870	mg/Kg		04/30/15 11:53		1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg		04/30/15 11:53		1
cis-1,3-Dichloropropene	0.000540	U	0.00500	0.000540	mg/Kg		04/30/15 11:53		1
1,1-Dichloroethene	0.00122	U	0.00500	0.00122	mg/Kg		04/30/15 11:53		1
1,2-Dichloropropane	0.000710	U	0.00500	0.000710	mg/Kg		04/30/15 11:53		1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg		04/30/15 11:53		1
2-Hexanone	0.00101	U	0.0100	0.00101	mg/Kg		04/30/15 11:53		1
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg		04/30/15 11:53		1
4-Methyl-2-pentanone (MIBK)	0.00147	U	0.0100	0.00147	mg/Kg		04/30/15 11:53		1
Styrene	0.000710	U	0.00500	0.000710	mg/Kg		04/30/15 11:53		1
1,1,2,2-Tetrachloroethane	0.000870	U	0.00500	0.000870	mg/Kg		04/30/15 11:53		1
Tetrachloroethylene	0.000710	U	0.00500	0.000710	mg/Kg		04/30/15 11:53		1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-161354/6**

**Matrix: Solid**

**Analysis Batch: 161354**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			04/30/15 11:53	1
o-Xylene	0.00113	U	0.00500	0.00113	mg/Kg			04/30/15 11:53	1
m-Xylene & p-Xylene	0.00152	U	0.00500	0.00152	mg/Kg			04/30/15 11:53	1
trans-1,2-Dichloroethene	0.00114	U	0.00500	0.00114	mg/Kg			04/30/15 11:53	1
trans-1,3-Dichloropropene	0.000580	U	0.00500	0.000580	mg/Kg			04/30/15 11:53	1
1,1,1-Trichloroethane	0.000740	U	0.00500	0.000740	mg/Kg			04/30/15 11:53	1
1,1,2-Trichloroethane	0.000730	U	0.0400	0.000730	mg/Kg			04/30/15 11:53	1
Trichloroethene	0.00140	U	0.00500	0.00140	mg/Kg			04/30/15 11:53	1
Vinyl acetate	0.000930	U	0.0100	0.000930	mg/Kg			04/30/15 11:53	1
Bromodichloromethane	0.000660	U	0.00500	0.000660	mg/Kg			04/30/15 11:53	1
Vinyl chloride	0.000900	U	0.0100	0.000900	mg/Kg			04/30/15 11:53	1
1,2-Dichloroethene, Total	0.00190	U	0.0100	0.00190	mg/Kg			04/30/15 11:53	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			04/30/15 11:53	1

**MB MB**

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
			Limits	Limits			
Toluene-d8 (Surr)	103		50 - 130			04/30/15 11:53	1
Dibromofluoromethane	87		68 - 140			04/30/15 11:53	1
4-Bromofluorobenzene	101		57 - 140			04/30/15 11:53	1
1,2-Dichloroethane-d4 (Surr)	82		61 - 130			04/30/15 11:53	1

**Lab Sample ID: LCS 600-161354/3**

**Matrix: Solid**

**Analysis Batch: 161354**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acetone	0.100	0.05047		mg/Kg		50	13 - 150
Benzene	0.0500	0.04469		mg/Kg		89	70 - 131
Bromoform	0.0500	0.05795		mg/Kg		116	43 - 150
Bromomethane	0.0500	0.05179		mg/Kg		104	37 - 147
2-Butanone (MEK)	0.100	0.06325		mg/Kg		63	33 - 150
Carbon disulfide	0.0500	0.03381		mg/Kg		68	51 - 141
Carbon tetrachloride	0.0500	0.03385		mg/Kg		68	58 - 130
Chlorobenzene	0.0500	0.04876		mg/Kg		98	63 - 131
Chlorobromomethane	0.0500	0.03945		mg/Kg		79	70 - 132
Chloroethane	0.0500	0.05703		mg/Kg		114	40 - 150
Chloroform	0.0500	0.04049		mg/Kg		81	69 - 130
Chloromethane	0.0500	0.04026		mg/Kg		81	44 - 141
cis-1,2-Dichloroethene	0.0500	0.04199		mg/Kg		84	70 - 130
Dibromochloromethane	0.0500	0.04849		mg/Kg		97	65 - 134
1,1-Dichloroethane	0.0500	0.04355		mg/Kg		87	63 - 140
1,2-Dichloroethane	0.0500	0.03630		mg/Kg		73	58 - 137
cis-1,3-Dichloropropene	0.0500	0.05476		mg/Kg		110	65 - 130
1,1-Dichloroethene	0.0500	0.03389		mg/Kg		68	62 - 142
1,2-Dichloropropane	0.0500	0.04621		mg/Kg		92	70 - 130
Ethylbenzene	0.0500	0.05156		mg/Kg		103	66 - 130
2-Hexanone	0.100	0.09359		mg/Kg		94	35 - 150
Methylene Chloride	0.0500	0.03829		mg/Kg		77	61 - 150
4-Methyl-2-pentanone (MIBK)	0.100	0.07624		mg/Kg		76	21 - 150

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# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 600-161354/3**

**Matrix: Solid**

**Analysis Batch: 161354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	
	Added	Result	Qualifier				Limits		
Styrene	0.0500	0.04634		mg/Kg		93	65 - 133		
1,1,2,2-Tetrachloroethane	0.0500	0.05556		mg/Kg		111	61 - 138		
Tetrachloroethene	0.0500	0.04334		mg/Kg		87	43 - 143		
Toluene	0.0500	0.05262		mg/Kg		105	67 - 130		
o-Xylene	0.0500	0.05152		mg/Kg		103	62 - 130		
m-Xylene & p-Xylene	0.0500	0.05097		mg/Kg		102	64 - 130		
trans-1,2-Dichloroethene	0.0500	0.03965		mg/Kg		79	69 - 130		
trans-1,3-Dichloropropene	0.0500	0.05707		mg/Kg		114	70 - 130		
1,1,1-Trichloroethane	0.0500	0.03544		mg/Kg		71	59 - 130		
1,1,2-Trichloroethane	0.0500	0.05016		mg/Kg		100	67 - 134		
Trichloroethene	0.0500	0.03931		mg/Kg		79	63 - 135		
Vinyl acetate	0.100	0.06317		mg/Kg		63	40 - 150		
Bromodichloromethane	0.0500	0.04190		mg/Kg		84	67 - 138		
Vinyl chloride	0.0500	0.04890		mg/Kg		98	40 - 148		
1,2-Dichloroethene, Total	0.100	0.08164		mg/Kg		82	70 - 130		
Xylenes, Total	0.100	0.1025		mg/Kg		102	63 - 130		

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	106		50 - 130
Dibromofluoromethane	87		68 - 140
4-Bromofluorobenzene	99		57 - 140
1,2-Dichloroethane-d4 (Surr)	74		61 - 130

**Lab Sample ID: LCSD 600-161354/4**

**Matrix: Solid**

**Analysis Batch: 161354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Acetone	0.100	0.1021	*	mg/Kg		102	13 - 150	68	30
Benzene	0.0500	0.04483		mg/Kg		90	70 - 131	0	30
Bromoform	0.0500	0.05572		mg/Kg		111	43 - 150	4	30
Bromomethane	0.0500	0.05563		mg/Kg		111	37 - 147	7	30
2-Butanone (MEK)	0.100	0.1003	*	mg/Kg		100	33 - 150	45	30
Carbon disulfide	0.0500	0.03436		mg/Kg		69	51 - 141	2	30
Carbon tetrachloride	0.0500	0.03382		mg/Kg		68	58 - 130	0	30
Chlorobenzene	0.0500	0.04701		mg/Kg		94	63 - 131	4	30
Chlorobromomethane	0.0500	0.04135		mg/Kg		83	70 - 132	5	30
Chloroethane	0.0500	0.05896		mg/Kg		118	40 - 150	3	30
Chloroform	0.0500	0.04119		mg/Kg		82	69 - 130	2	30
Chloromethane	0.0500	0.04159		mg/Kg		83	44 - 141	3	30
cis-1,2-Dichloroethene	0.0500	0.04299		mg/Kg		86	70 - 130	2	30
Dibromochloromethane	0.0500	0.04912		mg/Kg		98	65 - 134	1	30
1,1-Dichloroethane	0.0500	0.04338		mg/Kg		87	63 - 140	0	30
1,2-Dichloroethane	0.0500	0.03949		mg/Kg		79	58 - 137	8	30
cis-1,3-Dichloropropene	0.0500	0.05470		mg/Kg		109	65 - 130	0	30
1,1-Dichloroethene	0.0500	0.03420		mg/Kg		68	62 - 142	1	30
1,2-Dichloropropane	0.0500	0.04731		mg/Kg		95	70 - 130	2	30
Ethylbenzene	0.0500	0.04884		mg/Kg		98	66 - 130	5	30

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 600-161354/4**

**Matrix: Solid**

**Analysis Batch: 161354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD	Limit
	Added	Result	Qualifier			%Rec		RPD	
2-Hexanone	0.100	0.1093		mg/Kg	109	35 - 150	15	30	
Methylene Chloride	0.0500	0.04162		mg/Kg	83	61 - 150	8	30	
4-Methyl-2-pentanone (MIBK)	0.100	0.09719		mg/Kg	97	21 - 150	24	30	
Styrene	0.0500	0.04561		mg/Kg	91	65 - 133	2	30	
1,1,2,2-Tetrachloroethane	0.0500	0.05602		mg/Kg	112	61 - 138	1	30	
Tetrachloroethene	0.0500	0.04132		mg/Kg	83	43 - 143	5	30	
Toluene	0.0500	0.04933		mg/Kg	99	67 - 130	6	30	
o-Xylene	0.0500	0.04931		mg/Kg	99	62 - 130	4	30	
m-Xylene & p-Xylene	0.0500	0.04862		mg/Kg	97	64 - 130	5	30	
trans-1,2-Dichloroethene	0.0500	0.03954		mg/Kg	79	69 - 130	0	30	
trans-1,3-Dichloropropene	0.0500	0.05935		mg/Kg	119	70 - 130	4	30	
1,1,1-Trichloroethane	0.0500	0.03615		mg/Kg	72	59 - 130	2	30	
1,1,2-Trichloroethane	0.0500	0.05379		mg/Kg	108	67 - 134	7	30	
Trichloroethene	0.0500	0.03956		mg/Kg	79	63 - 135	1	30	
Vinyl acetate	0.100	0.07404		mg/Kg	74	40 - 150	16	30	
Bromodichloromethane	0.0500	0.04307		mg/Kg	86	67 - 138	3	30	
Vinyl chloride	0.0500	0.04948		mg/Kg	99	40 - 148	1	30	
1,2-Dichloroethene, Total	0.100	0.08253		mg/Kg	83	70 - 130	1	30	
Xylenes, Total	0.100	0.09793		mg/Kg	98	63 - 130	5	30	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		50 - 130
Dibromofluoromethane	85		68 - 140
4-Bromofluorobenzene	82		57 - 140
1,2-Dichloroethane-d4 (Surr)	77		61 - 130

**Lab Sample ID: MB 600-161469/3-A**

**Matrix: Waste**

**Analysis Batch: 161469**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161469**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	0.208	U	1.25	0.208	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Benzene	0.0788	U	0.625	0.0788	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Bromoform	0.171	U	0.625	0.171	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Bromomethane	0.104	U	1.25	0.104	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
2-Butanone (MEK)	0.238	U	1.25	0.238	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Carbon disulfide	0.0688	U	1.25	0.0688	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Carbon tetrachloride	0.141	U	0.625	0.141	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Chlorobenzene	0.120	U	0.625	0.120	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Chlorobromomethane	0.223	U	0.625	0.223	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Chloroethane	0.175	U	1.25	0.175	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Chloroform	0.0825	U	0.625	0.0825	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Chloromethane	0.208	U	1.25	0.208	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
cis-1,2-Dichloroethene	0.104	U	0.625	0.104	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
Dibromochloromethane	0.118	U	0.625	0.118	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
1,1-Dichloroethane	0.109	U	0.625	0.109	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
1,2-Dichloroethane	0.113	U	0.625	0.113	mg/Kg	05/01/15 10:30	05/01/15 14:14		1
cis-1,3-Dichloropropene	0.0675	U	0.625	0.0675	mg/Kg	05/01/15 10:30	05/01/15 14:14		1

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# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-161469/3-A**

**Matrix: Waste**

**Analysis Batch: 161470**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161469**

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
1,1-Dichloroethene	0.153	U	0.625	0.153	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
1,2-Dichloropropane	0.0888	U	0.625	0.0888	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Ethylbenzene	0.128	U	0.625	0.128	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
2-Hexanone	0.126	U	1.25	0.126	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Methylene Chloride	0.274	U	1.25	0.274	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
4-Methyl-2-pentanone (MIBK)	0.184	U	1.25	0.184	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Styrene	0.0888	U	0.625	0.0888	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
1,1,2,2-Tetrachloroethane	0.109	U	0.625	0.109	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Tetrachloroethene	0.0888	U	0.625	0.0888	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Toluene	0.173	U	0.625	0.173	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
o-Xylene	0.141	U	0.625	0.141	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
m-Xylene & p-Xylene	0.190	U	0.625	0.190	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
trans-1,2-Dichloroethene	0.143	U	0.625	0.143	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
trans-1,3-Dichloropropene	0.0725	U	0.625	0.0725	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
1,1,1-Trichloroethane	0.0925	U	0.625	0.0925	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
1,1,2-Trichloroethane	0.0913	U	5.00	0.0913	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Trichloroethene	0.175	U	0.625	0.175	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Vinyl acetate	0.116	U	1.25	0.116	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Bromodichloromethane	0.0825	U	0.625	0.0825	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Vinyl chloride	0.113	U	1.25	0.113	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
1,2-Dichloroethene, Total	0.238	U	1.25	0.238	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	
Xylenes, Total	0.141	U	0.625	0.141	mg/Kg	05/01/15 10:30	05/01/15 14:14		1	

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	112		50 - 130	05/01/15 10:30	05/01/15 14:14	1
Dibromofluoromethane	104		68 - 140	05/01/15 10:30	05/01/15 14:14	1
4-Bromofluorobenzene	100		57 - 140	05/01/15 10:30	05/01/15 14:14	1
1,2-Dichloroethane-d4 (Surr)	111		61 - 130	05/01/15 10:30	05/01/15 14:14	1

**Lab Sample ID: LCS 600-161469/1-A**

**Matrix: Waste**

**Analysis Batch: 161470**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161469**

Analyte	Spike		LCS		Unit	D	%Rec	Limits	
	Added	Result	Qualifier	Unit				Prepared	Analyzed
Acetone	12.5	13.19		mg/Kg	106	13 - 150			
Benzene	6.25	5.500		mg/Kg	88	70 - 131			
Bromoform	6.25	5.253		mg/Kg	84	43 - 150			
Bromomethane	6.25	5.683		mg/Kg	91	37 - 147			
2-Butanone (MEK)	12.5	11.86		mg/Kg	95	33 - 150			
Carbon disulfide	6.25	5.700		mg/Kg	91	51 - 141			
Carbon tetrachloride	6.25	6.465		mg/Kg	103	58 - 130			
Chlorobenzene	6.25	6.114		mg/Kg	98	63 - 131			
Chlorobromomethane	6.25	5.755		mg/Kg	92	70 - 132			
Chloroethane	6.25	5.803		mg/Kg	93	40 - 150			
Chloroform	6.25	6.317		mg/Kg	101	69 - 130			
Chloromethane	6.25	5.480		mg/Kg	88	44 - 141			
cis-1,2-Dichloroethene	6.25	5.711		mg/Kg	91	70 - 130			
Dibromochloromethane	6.25	5.708		mg/Kg	91	65 - 134			

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 600-161469/1-A**

**Matrix: Waste**

**Analysis Batch: 161470**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161469**

**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1-Dichloroethane	6.25	5.823		mg/Kg		93	63 - 140
1,2-Dichloroethane	6.25	6.205		mg/Kg		99	58 - 137
cis-1,3-Dichloropropene	6.25	5.622		mg/Kg		90	65 - 130
1,1-Dichloroethene	6.25	5.693		mg/Kg		91	62 - 142
1,2-Dichloropropane	6.25	5.267		mg/Kg		84	70 - 130
Ethylbenzene	6.25	5.537		mg/Kg		89	66 - 130
2-Hexanone	12.5	12.63		mg/Kg		101	35 - 150
Methylene Chloride	6.25	6.195		mg/Kg		99	61 - 150
4-Methyl-2-pentanone (MIBK)	12.5	10.80		mg/Kg		86	21 - 150
Styrene	6.25	5.298		mg/Kg		85	65 - 133
1,1,2,2-Tetrachloroethane	6.25	6.219		mg/Kg		100	61 - 138
Tetrachloroethene	6.25	5.623		mg/Kg		90	43 - 143
Toluene	6.25	5.789		mg/Kg		93	67 - 130
o-Xylene	6.25	5.503		mg/Kg		88	62 - 130
m-Xylene & p-Xylene	6.25	5.350		mg/Kg		86	64 - 130
trans-1,2-Dichloroethene	6.25	5.787		mg/Kg		93	69 - 130
trans-1,3-Dichloropropene	6.25	5.691		mg/Kg		91	70 - 130
1,1,1-Trichloroethane	6.25	6.547		mg/Kg		105	59 - 130
1,1,2-Trichloroethane	6.25	5.859		mg/Kg		94	67 - 134
Trichloroethene	6.25	5.613		mg/Kg		90	63 - 135
Vinyl acetate	12.5	11.16		mg/Kg		89	40 - 150
Bromodichloromethane	6.25	5.885		mg/Kg		94	67 - 138
Vinyl chloride	6.25	5.197		mg/Kg		83	40 - 148
1,2-Dichloroethene, Total	12.5	11.50		mg/Kg		92	70 - 130
Xylenes, Total	12.5	10.85		mg/Kg		87	63 - 130

**LCS LCS**

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	114		50 - 130
Dibromofluoromethane	112		68 - 140
4-Bromofluorobenzene	107		57 - 140
1,2-Dichloroethane-d4 (Surr)	115		61 - 130

**Lab Sample ID: LCSD 600-161469/2-A**

**Matrix: Waste**

**Analysis Batch: 161470**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 161469**

**%Rec.**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	12.5	12.60		mg/Kg		101	13 - 150	5	30
Benzene	6.25	5.377		mg/Kg		86	70 - 131	2	30
Bromoform	6.25	4.971		mg/Kg		80	43 - 150	6	30
Bromomethane	6.25	6.071		mg/Kg		97	37 - 147	7	30
2-Butanone (MEK)	12.5	11.54		mg/Kg		92	33 - 150	3	30
Carbon disulfide	6.25	5.368		mg/Kg		86	51 - 141	6	30
Carbon tetrachloride	6.25	6.199		mg/Kg		99	58 - 130	4	30
Chlorobenzene	6.25	5.592		mg/Kg		89	63 - 131	9	30
Chlorobromomethane	6.25	5.684		mg/Kg		91	70 - 132	1	30
Chloroethane	6.25	5.926		mg/Kg		95	40 - 150	2	30
Chloroform	6.25	6.142		mg/Kg		98	69 - 130	3	30

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 600-161469/2-A**

**Matrix: Waste**

**Analysis Batch: 161470**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 161469**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Chloromethane	6.25	5.251		mg/Kg	84	44 - 141	4	30	
cis-1,2-Dichloroethene	6.25	5.728		mg/Kg	92	70 - 130	0	30	
Dibromochloromethane	6.25	5.316		mg/Kg	85	65 - 134	7	30	
1,1-Dichloroethane	6.25	5.865		mg/Kg	94	63 - 140	1	30	
1,2-Dichloroethane	6.25	6.113		mg/Kg	98	58 - 137	1	30	
cis-1,3-Dichloropropene	6.25	5.307		mg/Kg	85	65 - 130	6	30	
1,1-Dichloroethylene	6.25	5.929		mg/Kg	95	62 - 142	4	30	
1,2-Dichloropropane	6.25	4.952		mg/Kg	79	70 - 130	6	30	
Ethylbenzene	6.25	5.115		mg/Kg	82	66 - 130	8	30	
2-Hexanone	12.5	11.96		mg/Kg	96	35 - 150	6	30	
Methylene Chloride	6.25	6.004		mg/Kg	96	61 - 150	3	30	
4-Methyl-2-pentanone (MIBK)	12.5	10.54		mg/Kg	84	21 - 150	2	30	
Styrene	6.25	4.934		mg/Kg	79	65 - 133	7	30	
1,1,2,2-Tetrachloroethane	6.25	6.263		mg/Kg	100	61 - 138	1	30	
Tetrachloroethylene	6.25	5.557		mg/Kg	89	43 - 143	1	30	
Toluene	6.25	5.479		mg/Kg	88	67 - 130	6	30	
o-Xylene	6.25	5.110		mg/Kg	82	62 - 130	7	30	
m-Xylene & p-Xylene	6.25	5.098		mg/Kg	82	64 - 130	5	30	
trans-1,2-Dichloroethene	6.25	5.622		mg/Kg	90	69 - 130	3	30	
trans-1,3-Dichloropropene	6.25	5.316		mg/Kg	85	70 - 130	7	30	
1,1,1-Trichloroethane	6.25	6.318		mg/Kg	101	59 - 130	4	30	
1,1,2-Trichloroethane	6.25	5.787		mg/Kg	93	67 - 134	1	30	
Trichloroethylene	6.25	5.701		mg/Kg	91	63 - 135	2	30	
Vinyl acetate	12.5	11.02		mg/Kg	88	40 - 150	1	30	
Bromodichloromethane	6.25	5.557		mg/Kg	89	67 - 138	6	30	
Vinyl chloride	6.25	4.928		mg/Kg	79	40 - 148	5	30	
1,2-Dichloroethylene, Total	12.5	11.35		mg/Kg	91	70 - 130	1	30	
Xylenes, Total	12.5	10.21		mg/Kg	82	63 - 130	6	30	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	111		50 - 130
Dibromofluoromethane	111		68 - 140
4-Bromofluorobenzene	107		57 - 140
1,2-Dichloroethane-d4 (Surr)	116		61 - 130

**Lab Sample ID: LB 180-140697/2-A**

**Matrix: Solid**

**Analysis Batch: 140820**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Butanone (MEK)	0.0108	U	0.0500	0.0108	mg/L			05/07/15 12:01	1
Benzene	0.00989	U	0.0500	0.00989	mg/L			05/07/15 12:01	1
Carbon tetrachloride	0.0108	U	0.0500	0.0108	mg/L			05/07/15 12:01	1
Chlorobenzene	0.00526	U	0.0500	0.00526	mg/L			05/07/15 12:01	1
Chloroform	0.0101	U	0.0500	0.0101	mg/L			05/07/15 12:01	1
1,2-Dichloroethane	0.00959	U	0.0500	0.00959	mg/L			05/07/15 12:01	1
1,1-Dichloroethene	0.0107	U	0.0500	0.0107	mg/L			05/07/15 12:01	1
Tetrachloroethylene	0.00825	U	0.0500	0.00825	mg/L			05/07/15 12:01	1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LB 180-140697/2-A**

**Matrix: Solid**

**Analysis Batch: 140820**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**

Analyte	LB		LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Result	Qualifier							
Trichloroethene	0.00801	U			0.0500	0.00801	mg/L			05/07/15 12:01	1
Vinyl chloride	0.0129	U			0.0500	0.0129	mg/L			05/07/15 12:01	1

Surrogate	LB		LB		%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Result	Qualifier						
1,2-Dichloroethane-d4 (Surr)	82		62 - 123						05/07/15 12:01	1
Toluene-d8 (Surr)	86		80 - 120						05/07/15 12:01	1
4-Bromofluorobenzene (Surr)	81		75 - 120						05/07/15 12:01	1
Dibromofluoromethane (Surr)	105		80 - 120						05/07/15 12:01	1

**Lab Sample ID: 600-110761-1 MS**

**Matrix: Waste**

**Analysis Batch: 140820**

**Client Sample ID: VB 25147-04292015**  
**Prep Type: TCLP**

Analyte	Sample	Sample	Spike	MS		MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier						
2-Butanone (MEK)	0.0434	U	1.60	1.326			mg/L		83	31 - 139	
Benzene	0.0396	U	1.60	1.549			mg/L		97	80 - 120	
Carbon tetrachloride	0.0433	U	1.60	1.712			mg/L		107	63 - 139	
Chlorobenzene	0.0210	U	1.60	1.589			mg/L		99	83 - 120	
Chloroform	0.0403	U	1.60	1.685			mg/L		105	77 - 119	
1,2-Dichloroethane	0.0384	U	1.60	1.535			mg/L		96	63 - 140	
1,1-Dichloroethene	0.0426	U	1.60	1.677			mg/L		105	69 - 127	
Tetrachloroethene	0.0330	U	1.60	1.487			mg/L		93	78 - 126	
Trichloroethene	0.0320	U	1.60	1.767			mg/L		110	80 - 120	
Vinyl chloride	0.0516	U	1.60	1.525			mg/L		95	57 - 128	

Surrogate	MS		MS		%Recovery	Qualifier	Limits
	%Recovery	Qualifier	Result	Qualifier			
1,2-Dichloroethane-d4 (Surr)	87		62 - 123				
Toluene-d8 (Surr)	86		80 - 120				
4-Bromofluorobenzene (Surr)	86		75 - 120				
Dibromofluoromethane (Surr)	103		80 - 120				

**Lab Sample ID: 600-110761-1 MSD**

**Matrix: Waste**

**Analysis Batch: 140820**

**Client Sample ID: VB 25147-04292015**  
**Prep Type: TCLP**

Analyte	Sample	Sample	Spike	MSD		MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
2-Butanone (MEK)	0.0434	U	1.60	1.431			mg/L		89	31 - 139	8	35
Benzene	0.0396	U	1.60	1.543			mg/L		96	80 - 120	0	20
Carbon tetrachloride	0.0433	U	1.60	1.578			mg/L		99	63 - 139	8	25
Chlorobenzene	0.0210	U	1.60	1.569			mg/L		98	83 - 120	1	20
Chloroform	0.0403	U	1.60	1.566			mg/L		98	77 - 119	7	20
1,2-Dichloroethane	0.0384	U	1.60	1.420			mg/L		89	63 - 140	8	25
1,1-Dichloroethene	0.0426	U	1.60	1.560			mg/L		97	69 - 127	7	20
Tetrachloroethene	0.0330	U	1.60	1.535			mg/L		96	78 - 126	3	25
Trichloroethene	0.0320	U	1.60	1.708			mg/L		107	80 - 120	3	20
Vinyl chloride	0.0516	U	1.60	1.415			mg/L		88	57 - 128	7	26

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 600-110761-1 MSD**

**Matrix: Waste**

**Analysis Batch: 140820**

**Client Sample ID: VB 25147-04292015**

**Prep Type: TCLP**

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		62 - 123
Toluene-d8 (Surr)	86		80 - 120
4-Bromofluorobenzene (Surr)	85		75 - 120
Dibromofluoromethane (Surr)	101		80 - 120

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 600-161476/1-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161476**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.189	U	0.330	0.189	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Acenaphthylene	0.193	U	0.330	0.193	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Anthracene	0.207	U	0.330	0.207	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Benzidine	0.00902	U	1.60	0.00902	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Benzo[a]anthracene	0.207	U	0.330	0.207	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Benzo[b]fluoranthene	0.0193	U	0.330	0.0193	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Benzo[k]fluoranthene	0.0294	U	0.330	0.0294	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Benzo[g,h,i]perylene	0.175	U	0.330	0.175	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Benzo[a]pyrene	0.185	U	0.330	0.185	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Bis(2-chloroethoxy)methane	0.186	U	0.330	0.186	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Bis(2-chloroethyl)ether	0.0330	U	0.330	0.0330	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Bis(2-ethylhexyl) phthalate	0.200	U	0.330	0.200	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
4-Bromophenyl phenyl ether	0.200	U	0.330	0.200	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Butyl benzyl phthalate	0.201	U	0.330	0.201	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
4-Chloroaniline	0.0660	U	0.330	0.0660	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
2-Chloronaphthalene	0.215	U	0.330	0.215	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
4-Chlorophenyl phenyl ether	0.198	U	0.330	0.198	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Carbazole	0.204	U	0.330	0.204	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Chrysene	0.202	U	0.330	0.202	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Di-n-butyl phthalate	0.213	U	0.330	0.213	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Dibenz(a,h)anthracene	0.190	U	0.330	0.190	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Dibenzo furan	0.197	U	0.330	0.197	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
1,2-Dichlorobenzene	0.0263	U	0.330	0.0263	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
1,3-Dichlorobenzene	0.178	U	0.330	0.178	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
1,4-Dichlorobenzene	0.0231	U	0.330	0.0231	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
3,3'-Dichlorobenzidine	0.0636	U	0.660	0.0636	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Diethyl phthalate	0.204	U	0.330	0.204	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Dimethyl phthalate	0.200	U	0.330	0.200	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
2,4-Dinitrotoluene	0.0329	U	0.330	0.0329	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
2,6-Dinitrotoluene	0.210	U	0.330	0.210	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Di-n-octyl phthalate	0.214	U	0.330	0.214	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Fluoranthene	0.211	U	0.330	0.211	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Fluorene	0.203	U	0.330	0.203	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Hexachlorobenzene	0.208	U	0.330	0.208	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Hexachlorocyclopentadiene	0.0223	U	0.330	0.0223	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1
Hexachloroethane	0.0299	U	0.330	0.0299	mg/Kg	05/01/15 11:21	05/04/15 09:58	1	1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-161476/1-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161476**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	0.0339	U	0.330	0.0339	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Indeno[1,2,3-cd]pyrene	0.181	U	0.330	0.181	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Isophorone	0.194	U	0.330	0.194	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2-Methylnaphthalene	0.189	U	0.330	0.189	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Naphthalene	0.0193	U	0.330	0.0193	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2-Nitroaniline	0.195	U	1.60	0.195	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
3-Nitroaniline	0.212	U	1.60	0.212	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
4-Nitroaniline	0.180	U	1.60	0.180	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Nitrobenzene	0.0474	U	0.330	0.0474	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
N-Nitrosodimethylamine	0.0955	U	0.330	0.0955	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
N-Nitrosodiphenylamine	0.0315	U	0.330	0.0315	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
N-Nitrosodi-n-propylamine	0.0286	U	0.330	0.0286	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Phenanthrene	0.203	U	0.330	0.203	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Pyrene	0.221	U	0.330	0.221	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
1,2,4-Trichlorobenzene	0.211	U	0.330	0.211	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Benzyl alcohol	0.0624	U	0.330	0.0624	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
4-Chloro-3-methylphenol	0.192	U	0.330	0.192	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2-Chlorophenol	0.0233	U	0.330	0.0233	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2-Methylphenol	0.0379	U	0.330	0.0379	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
3 & 4 Methylphenol	0.0301	U	0.660	0.0301	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2,4-Dichlorophenol	0.183	U	0.330	0.183	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2,4-Dimethylphenol	0.0636	U	0.330	0.0636	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
4,6-Dinitro-2-methylphenol	0.207	U	1.60	0.207	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2,4-Dinitrophenol	0.128	U	1.60	0.128	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2-Nitrophenol	0.180	U	0.330	0.180	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
4-Nitrophenol	0.180	U	1.60	0.180	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Pentachlorophenol	0.0221	U	1.60	0.0221	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
Phenol	0.0374	U	0.330	0.0374	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2,4,5-Trichlorophenol	0.0621	U	0.330	0.0621	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
2,4,6-Trichlorophenol	0.180	U	0.330	0.180	mg/Kg	05/01/15 11:21	05/04/15 09:58		1
bis (2-Chloroisopropyl) ether	0.0346	U	0.330	0.0346	mg/Kg	05/01/15 11:21	05/04/15 09:58		1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	71		10 - 150	05/01/15 11:21	05/04/15 09:58	1
2-Fluorophenol	73		25 - 132	05/01/15 11:21	05/04/15 09:58	1
2-Fluorobiphenyl	80		38 - 130	05/01/15 11:21	05/04/15 09:58	1
2,4,6-Tribromophenol	69		10 - 148	05/01/15 11:21	05/04/15 09:58	1
Terphenyl-d14	91		53 - 134	05/01/15 11:21	05/04/15 09:58	1
Phenol-d5 (Surr)	65		27 - 123	05/01/15 11:21	05/04/15 09:58	1

**Lab Sample ID: LCS 600-161476/2-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161476**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	3.32	2.730		mg/Kg	82	58 - 130	
Acenaphthylene	3.32	2.787		mg/Kg	84	56 - 130	
Anthracene	3.32	2.652		mg/Kg	80	58 - 130	

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 600-161476/2-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161476**

**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzidine	6.64	2.186		mg/Kg	33	10 - 135	
Benzo[a]anthracene	3.32	2.644		mg/Kg	80	49 - 130	
Benzo[b]fluoranthene	3.32	2.509		mg/Kg	76	58 - 130	
Benzo[k]fluoranthene	3.32	3.052		mg/Kg	92	56 - 130	
Benzo[g,h,i]perylene	3.32	2.824		mg/Kg	85	49 - 135	
Benzo[a]pyrene	3.32	2.668		mg/Kg	80	58 - 130	
Bis(2-chloroethoxy)methane	3.32	2.321		mg/Kg	70	49 - 130	
Bis(2-chloroethyl)ether	3.32	1.997		mg/Kg	60	44 - 130	
Bis(2-ethylhexyl) phthalate	3.32	2.692		mg/Kg	81	47 - 133	
4-Bromophenyl phenyl ether	3.32	2.498		mg/Kg	75	56 - 130	
Butyl benzyl phthalate	3.32	2.743		mg/Kg	83	43 - 135	
4-Chloroaniline	3.32	2.022		mg/Kg	61	42 - 130	
2-Chloronaphthalene	3.32	2.715		mg/Kg	82	51 - 130	
4-Chlorophenyl phenyl ether	3.32	2.645		mg/Kg	80	57 - 130	
Carbazole	3.32	2.734		mg/Kg	82	47 - 131	
Chrysene	3.32	2.630		mg/Kg	79	50 - 130	
Di-n-butyl phthalate	3.32	2.670		mg/Kg	80	54 - 130	
Dibenz(a,h)anthracene	3.32	2.589		mg/Kg	78	48 - 130	
Dibenzofuran	3.32	2.754		mg/Kg	83	58 - 130	
1,2-Dichlorobenzene	3.32	2.319		mg/Kg	70	44 - 130	
1,3-Dichlorobenzene	3.32	2.267		mg/Kg	68	43 - 130	
1,4-Dichlorobenzene	3.32	2.247		mg/Kg	68	46 - 130	
3,3'-Dichlorobenzidine	3.32	2.201		mg/Kg	66	41 - 130	
Diethyl phthalate	3.32	2.782		mg/Kg	84	55 - 130	
Dimethyl phthalate	3.32	2.760		mg/Kg	83	58 - 130	
2,4-Dinitrotoluene	3.32	2.809		mg/Kg	85	53 - 130	
2,6-Dinitrotoluene	3.32	2.883		mg/Kg	87	53 - 130	
Di-n-octyl phthalate	3.32	2.546		mg/Kg	77	45 - 135	
Fluoranthene	3.32	2.520		mg/Kg	76	56 - 130	
Fluorene	3.32	2.795		mg/Kg	84	52 - 147	
Hexachlorobenzene	3.32	2.526		mg/Kg	76	59 - 130	
Hexachlorocyclopentadiene	3.32	1.978		mg/Kg	60	33 - 130	
Hexachloroethane	3.32	2.326		mg/Kg	70	36 - 130	
Hexachlorobutadiene	3.32	2.257		mg/Kg	68	49 - 130	
Indeno[1,2,3-cd]pyrene	3.32	2.284		mg/Kg	69	41 - 130	
Isophorone	3.32	2.345		mg/Kg	71	49 - 130	
2-Methylnaphthalene	3.32	2.425		mg/Kg	73	54 - 130	
Naphthalene	3.32	2.423		mg/Kg	73	49 - 130	
2-Nitroaniline	3.32	2.849		mg/Kg	86	49 - 149	
3-Nitroaniline	3.32	2.463		mg/Kg	74	45 - 133	
4-Nitroaniline	3.32	4.624		mg/Kg	139	48 - 139	
Nitrobenzene	3.32	2.920		mg/Kg	88	47 - 130	
N-Nitrosodimethylamine	3.32	2.181		mg/Kg	66	29 - 130	
N-Nitrosodiphenylamine	6.61	5.380		mg/Kg	81	47 - 130	
N-Nitrosodi-n-propylamine	3.32	2.610		mg/Kg	79	43 - 130	
Phenanthrene	3.32	2.628		mg/Kg	79	58 - 130	
Pyrene	3.32	2.861		mg/Kg	86	48 - 131	
1,2,4-Trichlorobenzene	3.32	2.321		mg/Kg	70	45 - 130	

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 600-161476/2-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161476**

**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzyl alcohol	3.32	2.403		mg/Kg	72	25 - 141	
4-Chloro-3-methylphenol	3.32	2.445		mg/Kg	74	54 - 130	
2-Chlorophenol	3.32	2.423		mg/Kg	73	48 - 130	
2-Methylphenol	3.32	2.537		mg/Kg	76	46 - 130	
3 & 4 Methylphenol	3.32	2.532		mg/Kg	76	44 - 130	
2,4-Dichlorophenol	3.32	2.366		mg/Kg	71	56 - 130	
2,4-Dimethylphenol	3.32	2.446		mg/Kg	74	46 - 130	
4,6-Dinitro-2-methylphenol	6.64	4.911		mg/Kg	74	45 - 130	
2,4-Dinitrophenol	6.64	4.563		mg/Kg	69	25 - 130	
2-Nitrophenol	3.32	2.260		mg/Kg	68	50 - 130	
4-Nitrophenol	6.64	5.457		mg/Kg	82	20 - 132	
Pentachlorophenol	6.64	3.865		mg/Kg	58	34 - 130	
Phenol	3.32	2.441		mg/Kg	73	33 - 130	
2,4,5-Trichlorophenol	3.32	2.680		mg/Kg	81	59 - 136	
2,4,6-Trichlorophenol	3.32	2.611		mg/Kg	79	59 - 134	
bis (2-Chloroisopropyl) ether	3.32	2.486		mg/Kg	75	39 - 130	

**LCS**

**LCS**

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	73		10 - 150
2-Fluorophenol	72		25 - 132
2-Fluorobiphenyl	82		38 - 130
2,4,6-Tribromophenol	79		10 - 148
Terphenyl-d14	89		53 - 134
Phenol-d5 (Surr)	74		27 - 123

**Lab Sample ID: MB 600-161557/1-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161557**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	0.00216	U	0.0100	0.00216	mg/L	05/04/15 08:47	05/04/15 13:05		1
1,4-Dichlorobenzene	0.00178	U	0.0100	0.00178	mg/L	05/04/15 08:47	05/04/15 13:05		1
2,4-Dinitrotoluene	0.00263	U	0.0100	0.00263	mg/L	05/04/15 08:47	05/04/15 13:05		1
Hexachlorobenzene	0.00259	U	0.0100	0.00259	mg/L	05/04/15 08:47	05/04/15 13:05		1
Hexachloroethane	0.00220	U	0.0100	0.00220	mg/L	05/04/15 08:47	05/04/15 13:05		1
Hexachlorobutadiene	0.00212	U	0.0100	0.00212	mg/L	05/04/15 08:47	05/04/15 13:05		1
Nitrobenzene	0.00248	U	0.0100	0.00248	mg/L	05/04/15 08:47	05/04/15 13:05		1
2-Methylphenol	0.00181	U	0.0100	0.00181	mg/L	05/04/15 08:47	05/04/15 13:05		1
3 & 4 Methylphenol	0.00188	U	0.0200	0.00188	mg/L	05/04/15 08:47	05/04/15 13:05		1
Pentachlorophenol	0.00462	U	0.0500	0.00462	mg/L	05/04/15 08:47	05/04/15 13:05		1
2,4,5-Trichlorophenol	0.00271	U	0.0100	0.00271	mg/L	05/04/15 08:47	05/04/15 13:05		1
2,4,6-Trichlorophenol	0.00259	U	0.0100	0.00259	mg/L	05/04/15 08:47	05/04/15 13:05		1

**MB**

**MB**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	91		35 - 130	05/04/15 08:47	05/04/15 13:05	1
2-Fluorophenol	88		10 - 130	05/04/15 08:47	05/04/15 13:05	1
2-Fluorobiphenyl	91		41 - 130	05/04/15 08:47	05/04/15 13:05	1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-161557/1-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161557**

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol		72			12 - 138	05/04/15 08:47	05/04/15 13:05	1
Terphenyl-d14		106			43 - 130	05/04/15 08:47	05/04/15 13:05	1
Phenol-d5		78			10 - 130	05/04/15 08:47	05/04/15 13:05	1
Phenol-d5 (Surr)		78			10 - 130	05/04/15 08:47	05/04/15 13:05	1

**Lab Sample ID: LCS 600-161557/2-A**

**Matrix: Solid**

**Analysis Batch: 161542**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161557**

Analyte	Spikes	LCS	LCS	Unit	D	%Rec	Limits	
	Added	Result	Qualifier					
Pyridine	0.0500	0.03514		mg/L	70	10 - 130		
1,4-Dichlorobenzene	0.0500	0.04463		mg/L	89	57 - 130		
2,4-Dinitrotoluene	0.0500	0.04470		mg/L	89	60 - 130		
Hexachlorobenzene	0.0500	0.04487		mg/L	90	61 - 130		
Hexachloroethane	0.0500	0.04421		mg/L	88	52 - 130		
Hexachlorobutadiene	0.0500	0.04304		mg/L	86	52 - 130		
Nitrobenzene	0.0500	0.04412		mg/L	88	55 - 130		
2-Methylphenol	0.0500	0.04672		mg/L	93	39 - 130		
3 & 4 Methylphenol	0.0500	0.04565		mg/L	91	29 - 130		
Pentachlorophenol	0.100	0.06960		mg/L	70	29 - 141		
2,4,5-Trichlorophenol	0.0500	0.04278		mg/L	86	51 - 130		
2,4,6-Trichlorophenol	0.0500	0.04312		mg/L	86	49 - 130		

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Nitrobenzene-d5	91		35 - 130		
2-Fluorophenol	88		10 - 130		
2-Fluorobiphenyl	91		41 - 130		
2,4,6-Tribromophenol	81		12 - 138		
Terphenyl-d14	103		43 - 130		
Phenol-d5	90		10 - 130		
Phenol-d5 (Surr)	90		10 - 130		

**Lab Sample ID: MB 600-161646/1-A**

**Matrix: Waste**

**Analysis Batch: 161738**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161646**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		5.67	U		9.90	5.67	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Acenaphthylene		5.78	U		9.90	5.78	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Anthracene		6.22	U		9.90	6.22	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Benzidine		24.8	U		99.0	24.8	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Benzo[a]anthracene		6.22	U		9.90	6.22	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Benzo[b]fluoranthene		0.580	U		9.90	0.580	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Benzo[k]fluoranthene		0.882	U		9.90	0.882	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Benzo[g,h,i]perylene		5.26	U		9.90	5.26	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Benzo[a]pyrene		5.55	U		9.90	5.55	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Bis(2-chloroethoxy)methane		5.59	U		9.90	5.59	mg/Kg		05/05/15 09:00	05/06/15 09:43	1
Bis(2-chloroethyl)ether		0.989	U		9.90	0.989	mg/Kg		05/05/15 09:00	05/06/15 09:43	1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-161646/1-A**

**Matrix: Waste**

**Analysis Batch: 161738**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161646**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	6.00	U	9.90		6.00	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
4-Bromophenyl phenyl ether	6.00	U	9.90		6.00	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Butyl benzyl phthalate	6.02	U	9.90		6.02	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
4-Chloroaniline	1.98	U	9.90		1.98	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2-Chloronaphthalene	6.44	U	9.90		6.44	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
4-Chlorophenyl phenyl ether	5.95	U	9.90		5.95	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Carbazole	6.11	U	9.90		6.11	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Chrysene	6.05	U	9.90		6.05	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Di-n-butyl phthalate	6.39	U	9.90		6.39	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Dibenz(a,h)anthracene	5.69	U	9.90		5.69	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Dibenzofuran	5.90	U	9.90		5.90	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
1,2-Dichlorobenzene	0.789	U	9.90		0.789	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
1,3-Dichlorobenzene	5.34	U	9.90		5.34	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
1,4-Dichlorobenzene	0.692	U	9.90		0.692	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
3,3'-Dichlorobenzidine	1.91	U	19.8		1.91	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Diethyl phthalate	6.12	U	9.90		6.12	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Dimethyl phthalate	5.99	U	9.90		5.99	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2,4-Dinitrotoluene	0.987	U	9.90		0.987	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2,6-Dinitrotoluene	6.29	U	9.90		6.29	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Di-n-octyl phthalate	6.41	U	9.90		6.41	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Fluoranthene	6.32	U	9.90		6.32	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Fluorene	6.10	U	9.90		6.10	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Hexachlorobenzene	6.24	U	9.90		6.24	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Hexachlorocyclopentadiene	0.668	U	9.90		0.668	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Hexachloroethane	0.897	U	9.90		0.897	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Hexachlorobutadiene	1.02	U	9.90		1.02	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Indeno[1,2,3-cd]pyrene	5.43	U	9.90		5.43	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Isophorone	5.82	U	9.90		5.82	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2-Methylnaphthalene	5.67	U	9.90		5.67	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Naphthalene	0.579	U	9.90		0.579	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2-Nitroaniline	5.84	U	48.0		5.84	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
3-Nitroaniline	6.35	U	48.0		6.35	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
4-Nitroaniline	5.41	U	48.0		5.41	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Nitrobenzene	1.42	U	9.90		1.42	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
N-Nitrosodimethylamine	2.86	U	9.90		2.86	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
N-Nitrosodiphenylamine	0.946	U	9.90		0.946	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
N-Nitrosodi-n-propylamine	0.858	U	9.90		0.858	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Phenanthrene	6.09	U	9.90		6.09	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Pyrene	6.63	U	9.90		6.63	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
1,2,4-Trichlorobenzene	6.32	U	9.90		6.32	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
Benzyl alcohol	1.87	U	9.90		1.87	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
4-Chloro-3-methylphenol	5.76	U	9.90		5.76	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2-Chlorophenol	0.699	U	9.90		0.699	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2-Methylphenol	1.14	U	9.90		1.14	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
3 & 4 Methylphenol	0.902	U	19.8		0.902	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2,4-Dichlorophenol	5.48	U	9.90		5.48	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
2,4-Dimethylphenol	1.91	U	9.90		1.91	mg/Kg		05/05/15 09:00	05/06/15 09:43		1
4,6-Dinitro-2-methylphenol	6.20	U	48.0		6.20	mg/Kg		05/05/15 09:00	05/06/15 09:43		1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-161646/1-A**

**Matrix: Waste**

**Analysis Batch: 161738**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161646**

Analyte	MB		RL	MDL	Unit	D	Prepared		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
2,4-Dinitrophenol	3.84	U	48.0	3.84	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
2-Nitrophenol	5.40	U	9.90	5.40	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
4-Nitrophenol	5.40	U	48.0	5.40	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
Pentachlorophenol	0.664	U	48.0	0.664	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
Phenol	1.12	U	9.90	1.12	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
2,4,5-Trichlorophenol	1.86	U	9.90	1.86	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
2,4,6-Trichlorophenol	5.40	U	9.90	5.40	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	
bis (2-Chloroisopropyl) ether	1.04	U	9.90	1.04	mg/Kg	05/05/15 09:00	05/06/15 09:43	1	

Surrogate	MB		Limits	Prepared		Dil Fac
	%Recovery	Qualifier		Prepared	Analyzed	
Nitrobenzene-d5	97		46 - 130	05/05/15 09:00	05/06/15 09:43	1
2-Fluorophenol	101		45 - 130	05/05/15 09:00	05/06/15 09:43	1
2-Fluorobiphenyl	88		42 - 130	05/05/15 09:00	05/06/15 09:43	1
2,4,6-Tribromophenol	85		25 - 130	05/05/15 09:00	05/06/15 09:43	1
Terphenyl-d14	96		51 - 130	05/05/15 09:00	05/06/15 09:43	1
Phenol-d5 (Surr)	93		48 - 130	05/05/15 09:00	05/06/15 09:43	1

**Lab Sample ID: LCS 600-161646/2-A**

**Matrix: Waste**

**Analysis Batch: 161738**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161646**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
Acenaphthene	50.0	45.70		mg/Kg	91	60 - 130		
Acenaphthylene	50.0	46.53		mg/Kg	93	61 - 130		
Anthracene	50.0	46.61		mg/Kg	93	69 - 130		
Benzidine	100	43.69	J	mg/Kg	44	10 - 150		
Benzo[a]anthracene	50.0	46.71		mg/Kg	93	70 - 130		
Benzo[b]fluoranthene	50.0	46.44		mg/Kg	93	61 - 130		
Benzo[k]fluoranthene	50.0	50.75		mg/Kg	101	70 - 130		
Benzo[g,h,i]perylene	50.0	42.57		mg/Kg	85	56 - 130		
Benzo[a]pyrene	50.0	46.79		mg/Kg	94	70 - 130		
Bis(2-chloroethoxy)methane	50.0	46.12		mg/Kg	92	58 - 130		
Bis(2-chloroethyl)ether	50.0	51.78		mg/Kg	104	53 - 130		
Bis(2-ethylhexyl) phthalate	50.0	48.22		mg/Kg	96	57 - 130		
4-Bromophenyl phenyl ether	50.0	44.54		mg/Kg	89	66 - 130		
Butyl benzyl phthalate	50.0	48.55		mg/Kg	97	57 - 130		
4-Chloroaniline	50.0	41.25		mg/Kg	83	63 - 130		
2-Chloronaphthalene	50.0	45.09		mg/Kg	90	60 - 130		
4-Chlorophenyl phenyl ether	50.0	44.53		mg/Kg	89	67 - 130		
Carbazole	50.0	46.36		mg/Kg	93	61 - 130		
Chrysene	50.0	47.30		mg/Kg	95	67 - 130		
Di-n-butyl phthalate	50.0	47.15		mg/Kg	94	61 - 130		
Dibenz(a,h)anthracene	50.0	43.40		mg/Kg	87	60 - 130		
Dibenzofuran	50.0	45.70		mg/Kg	91	66 - 130		
1,2-Dichlorobenzene	50.0	41.37		mg/Kg	83	59 - 130		
1,3-Dichlorobenzene	50.0	39.14		mg/Kg	78	58 - 130		
1,4-Dichlorobenzene	50.0	39.22		mg/Kg	78	59 - 130		
3,3'-Dichlorobenzidine	50.0	49.87		mg/Kg	100	64 - 130		

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 600-161646/2-A**

**Matrix: Waste**

**Analysis Batch: 161738**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161646**

**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diethyl phthalate	50.0	48.58		mg/Kg	97	62 - 130	
Dimethyl phthalate	50.0	47.39		mg/Kg	95	66 - 130	
2,4-Dinitrotoluene	50.0	46.48		mg/Kg	93	66 - 130	
2,6-Dinitrotoluene	50.0	47.03		mg/Kg	94	65 - 130	
Di-n-octyl phthalate	50.0	48.23		mg/Kg	96	58 - 130	
Fluoranthene	50.0	45.11		mg/Kg	90	68 - 130	
Fluorene	50.0	46.36		mg/Kg	93	67 - 130	
Hexachlorobenzene	50.0	45.67		mg/Kg	91	64 - 130	
Hexachlorocyclopentadiene	50.0	30.83		mg/Kg	62	10 - 130	
Hexachloroethane	50.0	41.70		mg/Kg	83	49 - 130	
Hexachlorobutadiene	50.0	41.31		mg/Kg	83	52 - 130	
Indeno[1,2,3-cd]pyrene	50.0	38.53		mg/Kg	77	49 - 130	
Isophorone	50.0	43.85		mg/Kg	88	57 - 130	
2-Methylnaphthalene	50.0	45.34		mg/Kg	91	66 - 130	
Naphthalene	50.0	44.37		mg/Kg	89	63 - 130	
2-Nitroaniline	50.0	48.17		mg/Kg	96	56 - 132	
3-Nitroaniline	50.0	45.16	J	mg/Kg	90	65 - 130	
4-Nitroaniline	50.0	59.04		mg/Kg	118	59 - 133	
Nitrobenzene	50.0	45.46		mg/Kg	91	41 - 140	
N-Nitrosodimethylamine	50.0	47.92		mg/Kg	96	53 - 139	
N-Nitrosodiphenylamine	99.6	89.64		mg/Kg	90	70 - 130	
N-Nitrosodi-n-propylamine	50.0	47.32		mg/Kg	95	54 - 142	
Phenanthrene	50.0	45.39		mg/Kg	91	68 - 130	
Pyrene	50.0	46.92		mg/Kg	94	64 - 130	
1,2,4-Trichlorobenzene	50.0	41.15		mg/Kg	82	59 - 130	
Benzyl alcohol	50.0	53.10		mg/Kg	106	58 - 130	
4-Chloro-3-methylphenol	50.0	48.40		mg/Kg	97	62 - 130	
2-Chlorophenol	50.0	48.38		mg/Kg	97	60 - 130	
2-Methylphenol	50.0	47.21		mg/Kg	94	64 - 130	
3 & 4 Methylphenol	50.0	48.43		mg/Kg	97	65 - 130	
2,4-Dichlorophenol	50.0	47.48		mg/Kg	95	66 - 130	
2,4-Dimethylphenol	50.0	49.35		mg/Kg	99	56 - 130	
4,6-Dinitro-2-methylphenol	100	94.56		mg/Kg	95	29 - 132	
2,4-Dinitrophenol	100	89.53		mg/Kg	90	10 - 147	
2-Nitrophenol	50.0	46.27		mg/Kg	93	63 - 130	
4-Nitrophenol	100	80.25		mg/Kg	80	23 - 137	
Pentachlorophenol	100	90.94		mg/Kg	91	27 - 130	
Phenol	50.0	50.17		mg/Kg	100	61 - 130	
2,4,5-Trichlorophenol	50.0	45.22		mg/Kg	90	58 - 130	
2,4,6-Trichlorophenol	50.0	47.82		mg/Kg	96	60 - 130	
bis (2-Chloroisopropyl) ether	50.0	45.61		mg/Kg	91	41 - 130	

**LCS   LCS**

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	93		46 - 130
2-Fluorophenol	100		45 - 130
2-Fluorobiphenyl	90		42 - 130
2,4,6-Tribromophenol	98		25 - 130
Terphenyl-d14	98		51 - 130

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 600-161646/2-A**

**Matrix: Waste**

**Analysis Batch: 161738**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161646**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d5 (Surr)	96		48 - 130

**Lab Sample ID: LB 600-161428/1-E**

**Matrix: Waste**

**Analysis Batch: 161632**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161557**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	0.0108	U	0.0500	0.0108	mg/L	05/04/15 08:47	05/05/15 11:50		1
1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890	mg/L	05/04/15 08:47	05/05/15 11:50		1
2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132	mg/L	05/04/15 08:47	05/05/15 11:50		1
Hexachlorobenzene	0.0130	U	0.0500	0.0130	mg/L	05/04/15 08:47	05/05/15 11:50		1
Hexachloroethane	0.0110	U	0.0500	0.0110	mg/L	05/04/15 08:47	05/05/15 11:50		1
Hexachlorobutadiene	0.0106	U	0.0500	0.0106	mg/L	05/04/15 08:47	05/05/15 11:50		1
Nitrobenzene	0.0124	U	0.0500	0.0124	mg/L	05/04/15 08:47	05/05/15 11:50		1
2-Methylphenol	0.00905	U	0.0500	0.00905	mg/L	05/04/15 08:47	05/05/15 11:50		1
3 & 4 Methylphenol	0.00940	U	0.100	0.00940	mg/L	05/04/15 08:47	05/05/15 11:50		1
Pentachlorophenol	0.0231	U	0.250	0.0231	mg/L	05/04/15 08:47	05/05/15 11:50		1
2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136	mg/L	05/04/15 08:47	05/05/15 11:50		1
2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129	mg/L	05/04/15 08:47	05/05/15 11:50		1

Surrogate	LB %Recovery	LB Qualifier	Limits
Nitrobenzene-d5	80		35 - 130
2-Fluorophenol	66		10 - 130
2-Fluorobiphenyl	75		41 - 130
2,4,6-Tribromophenol	77		12 - 138
Terphenyl-d14	94		43 - 130
Phenol-d5 (Surr)	47		10 - 130

**Lab Sample ID: LB 600-161430/1-D**

**Matrix: Solid**

**Analysis Batch: 161632**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161557**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	0.0108	U	0.0500	0.0108	mg/L	05/04/15 08:47	05/05/15 11:18		1
1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890	mg/L	05/04/15 08:47	05/05/15 11:18		1
2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132	mg/L	05/04/15 08:47	05/05/15 11:18		1
Hexachlorobenzene	0.0130	U	0.0500	0.0130	mg/L	05/04/15 08:47	05/05/15 11:18		1
Hexachloroethane	0.0110	U	0.0500	0.0110	mg/L	05/04/15 08:47	05/05/15 11:18		1
Hexachlorobutadiene	0.0106	U	0.0500	0.0106	mg/L	05/04/15 08:47	05/05/15 11:18		1
Nitrobenzene	0.0124	U	0.0500	0.0124	mg/L	05/04/15 08:47	05/05/15 11:18		1
2-Methylphenol	0.00905	U	0.0500	0.00905	mg/L	05/04/15 08:47	05/05/15 11:18		1
3 & 4 Methylphenol	0.00940	U	0.100	0.00940	mg/L	05/04/15 08:47	05/05/15 11:18		1
Pentachlorophenol	0.0231	U	0.250	0.0231	mg/L	05/04/15 08:47	05/05/15 11:18		1
2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136	mg/L	05/04/15 08:47	05/05/15 11:18		1
2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129	mg/L	05/04/15 08:47	05/05/15 11:18		1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LB 600-161430/1-D**

**Matrix: Solid**

**Analysis Batch: 161632**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161557**

Surrogate	LB		LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
Nitrobenzene-d5	79				35 - 130	05/04/15 08:47	05/05/15 11:18	1
2-Fluorophenol	65				10 - 130	05/04/15 08:47	05/05/15 11:18	1
2-Fluorobiphenyl	74				41 - 130	05/04/15 08:47	05/05/15 11:18	1
2,4,6-Tribromophenol	71				12 - 138	05/04/15 08:47	05/05/15 11:18	1
Terphenyl-d14	90				43 - 130	05/04/15 08:47	05/05/15 11:18	1
Phenol-d5	46				10 - 130	05/04/15 08:47	05/05/15 11:18	1

**Lab Sample ID: 600-110761-1 MS**

**Matrix: Waste**

**Analysis Batch: 161632**

**Client Sample ID: VB 25147-04292015**

**Prep Type: TCLP**

**Prep Batch: 161557**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Pyridine	0.108	U F1	0.250	0.108	U F1	mg/L	0	10 - 130	
1,4-Dichlorobenzene	0.0890	U	0.250	0.1879	J	mg/L	75	57 - 130	
2,4-Dinitrotoluene	0.132	U	0.250	0.3074	J	mg/L	123	60 - 130	
Hexachlorobenzene	0.130	U	0.250	0.2532	J	mg/L	101	61 - 130	
Hexachloroethane	0.110	U F1	0.250	0.3732	J F1	mg/L	149	52 - 130	
Hexachlorobutadiene	0.106	U	0.250	0.2153	J	mg/L	86	52 - 130	
Nitrobenzene	0.124	U F1	0.250	0.5326	F1	mg/L	213	55 - 130	
2-Methylphenol	0.382	J	0.250	0.6076		mg/L	90	39 - 130	
3 & 4 Methylphenol	0.415	J	0.250	0.6039	J	mg/L	76	29 - 130	
Pentachlorophenol	0.231	U F1	0.500	0.9621	J F1	mg/L	192	29 - 141	
2,4,5-Trichlorophenol	0.136	U	0.250	0.3092	J	mg/L	124	51 - 130	
2,4,6-Trichlorophenol	0.129	U	0.250	0.3138	J	mg/L	126	49 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	133	X	35 - 130
2-Fluorophenol	79		10 - 130
2-Fluorobiphenyl	106		41 - 130
2,4,6-Tribromophenol	101		12 - 138
Terphenyl-d14	98		43 - 130
Phenol-d5 (Surr)	0	X	10 - 130

**Lab Sample ID: 600-110761-2 MS**

**Matrix: Solid**

**Analysis Batch: 161632**

**Client Sample ID: OT 25563-04292015**

**Prep Type: TCLP**

**Prep Batch: 161557**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Pyridine	0.0108	U	0.250	0.04674	J	mg/L	19	10 - 130	
1,4-Dichlorobenzene	0.00890	U	0.250	0.2173		mg/L	87	57 - 130	
2,4-Dinitrotoluene	0.0132	U	0.250	0.2364		mg/L	95	60 - 130	
Hexachlorobenzene	0.0130	U	0.250	0.2296		mg/L	92	61 - 130	
Hexachloroethane	0.0110	U	0.250	0.2239		mg/L	90	52 - 130	
Hexachlorobutadiene	0.0106	U	0.250	0.2238		mg/L	90	52 - 130	
Nitrobenzene	0.0124	U	0.250	0.2206		mg/L	88	55 - 130	
2-Methylphenol	0.00905	U	0.250	0.2327		mg/L	93	39 - 130	
3 & 4 Methylphenol	0.00940	U	0.250	0.2270		mg/L	91	29 - 130	
Pentachlorophenol	0.0231	U	0.500	0.4617		mg/L	92	29 - 141	

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID:** 600-110761-2 MS

**Matrix:** Solid

**Analysis Batch:** 161632

**Client Sample ID:** OT 25563-04292015

**Prep Type:** TCLP

**Prep Batch:** 161557

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
2,4,5-Trichlorophenol	0.0136	U	0.250	0.2331		mg/L		93	51 - 130		
2,4,6-Trichlorophenol	0.0129	U	0.250	0.2409		mg/L		96	49 - 130		
Surrogate	%Recovery	Qualifier		MS	MS						
Nitrobenzene-d5	94			35 - 130							
2-Fluorophenol	93			10 - 130							
2-Fluorobiphenyl	92			41 - 130							
2,4,6-Tribromophenol	97			12 - 138							
Terphenyl-d14	97			43 - 130							
Phenol-d5	82			10 - 130							

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

**Lab Sample ID:** MB 600-161473/1-A

**Matrix:** Solid

**Analysis Batch:** 161459

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 161473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		05/01/15 10:58	05/01/15 14:02	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		05/01/15 10:58	05/01/15 14:02	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		05/01/15 10:58	05/01/15 14:02	1
C6-C35	3.80	U	10.0	3.80	mg/Kg		05/01/15 10:58	05/01/15 14:02	1
Surrogate	MB %Recovery	MB Qualifier		MB Limits			Prepared	Analyzed	Dil Fac
o-Terphenyl	96			70 - 130			05/01/15 10:58	05/01/15 14:02	1

**Lab Sample ID:** LCS 600-161473/2-A

**Matrix:** Solid

**Analysis Batch:** 161459

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 161473

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
C6-C12		250	223.0		mg/Kg		89	75 - 125		
>C12-C28		250	194.3		mg/Kg		78	75 - 125		
C6-C35		500	417.3		mg/Kg		83	75 - 125		
Surrogate	LCS %Recovery	LCS Qualifier	Limits							
o-Terphenyl	98		70 - 130							

**Lab Sample ID:** LCSD 600-161473/3-A

**Matrix:** Solid

**Analysis Batch:** 161459

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 161473

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C6-C12		250	246.4		mg/Kg		99	75 - 125	10	20
>C12-C28		250	201.6		mg/Kg		81	75 - 125	4	20
C6-C35		500	448.0		mg/Kg		90	75 - 125	7	20

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

**Lab Sample ID:** LCSD 600-161473/3-A

**Matrix:** Solid

**Analysis Batch:** 161459

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 161473

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	110		70 - 130

## Method: 6010B - Metals (ICP)

**Lab Sample ID:** MB 600-161486/1-A

**Matrix:** Solid

**Analysis Batch:** 161590

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 161486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00328	U	0.0100	0.00328	mg/L		05/01/15 12:32	05/04/15 12:19	1
Barium	0.00220	U	0.0200	0.00220	mg/L		05/01/15 12:32	05/04/15 12:19	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		05/01/15 12:32	05/04/15 12:19	1
Chromium	0.00155	U	0.0100	0.00155	mg/L		05/01/15 12:32	05/04/15 12:19	1
Lead	0.00290	U	0.0100	0.00290	mg/L		05/01/15 12:32	05/04/15 12:19	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		05/01/15 12:32	05/04/15 12:19	1
Silver	0.00125	U	0.0100	0.00125	mg/L		05/01/15 12:32	05/04/15 12:19	1

**Lab Sample ID:** LCS 600-161486/2-A

**Matrix:** Solid

**Analysis Batch:** 161590

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 161486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Arsenic	1.00	1.061		mg/L		106	80 - 120	
Barium	1.00	1.048		mg/L		105	80 - 120	
Cadmium	0.500	0.5298		mg/L		106	80 - 120	
Chromium	1.00	1.036		mg/L		104	80 - 120	
Lead	1.00	1.038		mg/L		104	80 - 120	
Selenium	1.00	1.059		mg/L		106	80 - 120	
Silver	0.500	0.5341		mg/L		107	80 - 120	

**Lab Sample ID:** MB 490-245971/1-A

**Matrix:** Solid

**Analysis Batch:** 246253

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 245971

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.879	U	1.95	0.879	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Barium	1.56	U	1.95	1.56	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Cadmium	0.0977	U	0.977	0.0977	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Chromium	0.586	U	0.977	0.586	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Lead	0.488	U	0.977	0.488	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Selenium	0.977	U	1.95	0.977	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Silver	0.488	U	0.977	0.488	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Sodium	129.0	J	195	97.7	mg/Kg		05/05/15 14:50	05/06/15 10:25	1
Sulfur	19.5	U	48.8	19.5	mg/Kg		05/05/15 14:50	05/06/15 10:25	1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 490-245971/2-A**

**Matrix: Solid**

**Analysis Batch: 246253**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 245971**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Arsenic	19.3	16.40		mg/Kg		85	80 - 120	
Barium	774	727.1		mg/Kg		94	80 - 120	
Cadmium	19.3	18.12		mg/Kg		94	80 - 120	
Chromium	77.4	75.32		mg/Kg		97	80 - 120	
Lead	19.3	17.93		mg/Kg		93	80 - 120	
Selenium	19.3	17.45		mg/Kg		90	80 - 120	
Silver	19.3	17.49		mg/Kg		90	80 - 120	
Sodium	1930	1845		mg/Kg		95	80 - 120	
Sulfur	387	340.2		mg/Kg		88	80 - 120	

**Lab Sample ID: LCSD 490-245971/3-A**

**Matrix: Solid**

**Analysis Batch: 246253**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 245971**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
Arsenic	19.4	17.50		mg/Kg		90	80 - 120	6	6	20
Barium	775	751.6		mg/Kg		97	80 - 120	3	3	20
Cadmium	19.4	18.74		mg/Kg		97	80 - 120	3	3	20
Chromium	77.5	77.81		mg/Kg		100	80 - 120	3	3	20
Lead	19.4	19.67		mg/Kg		101	80 - 120	9	9	20
Selenium	19.4	17.79		mg/Kg		92	80 - 120	2	2	20
Silver	19.4	18.00		mg/Kg		93	80 - 120	3	3	20
Sodium	1940	1857		mg/Kg		96	80 - 120	1	1	20
Sulfur	388	351.4		mg/Kg		91	80 - 120	3	3	20

**Lab Sample ID: 600-110761-2 MS**

**Matrix: Solid**

**Analysis Batch: 246253**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 245971**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
Arsenic	4.57		19.2	23.07		mg/Kg		96	75 - 125	
Barium	315		768	1017		mg/Kg		91	75 - 125	
Cadmium	0.882	J	19.2	17.68		mg/Kg		88	75 - 125	
Chromium	69.9		76.8	132.2		mg/Kg		81	75 - 125	
Lead	42.1	F1	19.2	70.27	F1	mg/Kg		147	75 - 125	
Selenium	1.00	U	19.2	18.39		mg/Kg		96	75 - 125	
Silver	1.76		19.2	18.83		mg/Kg		89	75 - 125	
Sodium	2000	B	1920	3537		mg/Kg		80	75 - 125	
Sulfur	11200	F2	384	11910	4	mg/Kg		193	75 - 125	

**Lab Sample ID: 600-110761-2 MSD**

**Matrix: Solid**

**Analysis Batch: 246253**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 245971**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
Arsenic	4.57		19.7	25.53		mg/Kg		106	75 - 125	10	10	20
Barium	315		787	1055		mg/Kg		94	75 - 125	4	4	20
Cadmium	0.882	J	19.7	18.43		mg/Kg		89	75 - 125	4	4	20
Chromium	69.9		78.7	139.6		mg/Kg		89	75 - 125	5	5	20

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 600-110761-2 MSD**

**Matrix: Solid**

**Analysis Batch: 246253**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 245971**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Lead	42.1	F1	19.7	65.96		mg/Kg	121	75 - 125	6	20	
Selenium	1.00	U	19.7	20.26		mg/Kg	103	75 - 125	10	20	
Silver	1.76		19.7	20.39		mg/Kg	95	75 - 125	8	20	
Sodium	2000	B	1970	3793		mg/Kg	91	75 - 125	7	20	
Sulfur	11200	F2	394	15130	4 F2	mg/Kg	1007	75 - 125	24	20	

**Lab Sample ID: LB 600-161428/1-B**

**Matrix: Waste**

**Analysis Batch: 161590**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161486**

Analyte	LB	LB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Arsenic	0.03600	J	0.100		0.0328	mg/L		05/01/15 12:32	05/04/15 12:23		1
Barium	0.1450	J	0.200		0.0220	mg/L		05/01/15 12:32	05/04/15 12:23		1
Cadmium	0.00350	U	0.0500		0.00350	mg/L		05/01/15 12:32	05/04/15 12:23		1
Chromium	0.0155	U	0.100		0.0155	mg/L		05/01/15 12:32	05/04/15 12:23		1
Lead	0.0290	U	0.100		0.0290	mg/L		05/01/15 12:32	05/04/15 12:23		1
Selenium	0.0417	U	0.400		0.0417	mg/L		05/01/15 12:32	05/04/15 12:23		1
Silver	0.0125	U	0.100		0.0125	mg/L		05/01/15 12:32	05/04/15 12:23		1

**Lab Sample ID: LB 600-161430/1-B**

**Matrix: Solid**

**Analysis Batch: 161590**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161486**

Analyte	LB	LB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Arsenic	0.0328	U	0.100		0.0328	mg/L		05/01/15 12:32	05/04/15 13:08		1
Barium	0.1060	J	0.200		0.0220	mg/L		05/01/15 12:32	05/04/15 13:08		1
Cadmium	0.00350	U	0.0500		0.00350	mg/L		05/01/15 12:32	05/04/15 13:08		1
Chromium	0.0155	U	0.100		0.0155	mg/L		05/01/15 12:32	05/04/15 13:08		1
Lead	0.0290	U	0.100		0.0290	mg/L		05/01/15 12:32	05/04/15 13:08		1
Selenium	0.04500	J	0.400		0.0417	mg/L		05/01/15 12:32	05/04/15 13:08		1
Silver	0.02200	J	0.100		0.0125	mg/L		05/01/15 12:32	05/04/15 13:08		1

**Lab Sample ID: 600-110761-1 MS**

**Matrix: Waste**

**Analysis Batch: 161590**

**Client Sample ID: VB 25147-04292015**

**Prep Type: TCLP**

**Prep Batch: 161486**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Arsenic	0.0328	U	10.0	10.84		mg/L	108	75 - 125	
Barium	0.255	B	10.0	10.77		mg/L	105	75 - 125	
Cadmium	0.00350	U	5.00	5.380		mg/L	108	75 - 125	
Chromium	0.0155	U	10.0	10.46		mg/L	105	75 - 125	
Lead	0.0290	U	10.0	10.69		mg/L	107	75 - 125	
Selenium	0.0460	J	10.0	10.94		mg/L	109	75 - 125	
Silver	0.0125	U	5.00	5.518		mg/L	110	75 - 125	

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 600-110761-2 MS**

**Matrix: Solid**

**Analysis Batch: 161590**

**Client Sample ID: OT 25563-04292015**

**Prep Type: TCLP**

**Prep Batch: 161486**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0570	J	10.0	10.68		mg/L	106	75 - 125	
Barium	0.887	B	10.0	11.35		mg/L	105	75 - 125	
Cadmium	0.00350	U	5.00	5.297		mg/L	106	75 - 125	
Chromium	0.0155	U	10.0	10.15		mg/L	102	75 - 125	
Lead	0.0290	U	10.0	10.43		mg/L	104	75 - 125	
Selenium	0.0417	U	10.0	10.77		mg/L	108	75 - 125	
Silver	0.0125	U	5.00	5.375		mg/L	108	75 - 125	

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 600-161554/7-A**

**Matrix: Solid**

**Analysis Batch: 161601**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161554**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/04/15 08:20	05/04/15 12:43	1

**Lab Sample ID: LCS 600-161554/8-A ^50**

**Matrix: Solid**

**Analysis Batch: 161601**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161554**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.153	0.1550		mg/L		101	70 - 130

**Lab Sample ID: LB 600-161428/1-D**

**Matrix: Waste**

**Analysis Batch: 161601**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161554**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/04/15 08:20	05/04/15 12:47	1

**Lab Sample ID: LB 600-161430/1-C**

**Matrix: Solid**

**Analysis Batch: 161601**

**Client Sample ID: Method Blank**

**Prep Type: TCLP**

**Prep Batch: 161554**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/04/15 08:20	05/04/15 13:10	1

**Lab Sample ID: 600-110761-1 MS**

**Matrix: Waste**

**Analysis Batch: 161601**

**Client Sample ID: VB 25147-04292015**

**Prep Type: TCLP**

**Prep Batch: 161554**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.000820	U	0.0300	0.02824		mg/L	94	75 - 125	

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 7470A - Mercury (CVAA) (Continued)

**Lab Sample ID: 600-110761-2 MS**

**Matrix: Solid**

**Analysis Batch: 161601**

**Client Sample ID: OT 25563-04292015**

**Prep Type: TCLP**

**Prep Batch: 161554**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.0000820	U	0.00300	0.003141		mg/L	105	75 - 125	

**Lab Sample ID: 600-110761-2 DU**

**Matrix: Solid**

**Analysis Batch: 161601**

**Client Sample ID: OT 25563-04292015**

**Prep Type: TCLP**

**Prep Batch: 161554**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.0000820	U	0.0000820	U	mg/L		NC	20

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 600-161765/7-A**

**Matrix: Solid**

**Analysis Batch: 161784**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161765**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00330	U	0.0157	0.00330	mg/Kg		05/06/15 09:43	05/06/15 11:20	1

**Lab Sample ID: LCSSRM 600-161765/8-A ^50**

**Matrix: Solid**

**Analysis Batch: 161784**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161765**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Mercury	5.76	6.579		mg/Kg		114.2	71.2 - 128.

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**Lab Sample ID: MB 600-161855/7-A**

**Matrix: Waste**

**Analysis Batch: 161889**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161855**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00336	U	0.0159	0.00336	mg/Kg		05/07/15 07:42	05/07/15 09:53	1

**Lab Sample ID: LCSSRM 600-161855/8-A ^50**

**Matrix: Waste**

**Analysis Batch: 161889**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161855**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Mercury	5.76	6.467		mg/Kg		112.3	71.2 - 128.

6

## Method: 9012 - Cyanide, Reactive

**Lab Sample ID: MB 600-161660/1-A**

**Matrix: Waste**

**Analysis Batch: 161725**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161660**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	0.0855	U	0.250	0.0855	mg/Kg		05/05/15 07:50	05/05/15 16:45	1

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 9012 - Cyanide, Reactive (Continued)

**Lab Sample ID: LCS 600-161660/2-A**

**Matrix: Solid**

**Analysis Batch: 161725**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161660**

**Analyte**

**Spike Added**

**LCS Result**

**LCS Qualifier**

**Unit**

**D**

**%Rec.**

**Limits**

Cyanide, Reactive

1000

242.6

mg/Kg

24

0 - 200

**Lab Sample ID: 600-110761-2 MS**

**Matrix: Solid**

**Analysis Batch: 161725**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 161660**

**Analyte**

**Sample Result**

**Sample Qualifier**

**Spike Added**

**MS Result**

**MS Qualifier**

**Unit**

**D**

**%Rec.**

**Limits**

Cyanide, Reactive

0.0850

U

998

57.58

mg/Kg

6

0 - 200

**Lab Sample ID: 600-110761-2 DU**

**Matrix: Solid**

**Analysis Batch: 161725**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 161660**

**Analyte**

**Sample Result**

**Sample Qualifier**

**DU Result**

**DU Qualifier**

**Unit**

**D**

**RPD**

**Limit**

Cyanide, Reactive

0.0850

U

0.0847

U

mg/Kg

NC

20

## Method: 9023 - Organic Halides, Extractable (EOX)

**Lab Sample ID: MB 240-179438/3-A**

**Matrix: Solid**

**Analysis Batch: 179606**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 179438**

**Analyte**

**MB Result**

**MB Qualifier**

**RL**

**MDL**

**Unit**

**D**

**Prepared**

**Analyzed**

**Dil Fac**

Halogens, Extractable Organic

33.7

U

198

33.7

mg/Kg

05/06/15 05:22

05/06/15 08:19

1

**Lab Sample ID: LCS 240-179438/4-A**

**Matrix: Solid**

**Analysis Batch: 179606**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 179438**

**Analyte**

**Spike Added**

**LCS Result**

**LCS Qualifier**

**Unit**

**D**

**%Rec.**

**Limits**

Halogens, Extractable Organic

1000

1020

mg/Kg

102

75 - 125

## Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

**Lab Sample ID: MB 600-161660/1-A**

**Matrix: Waste**

**Analysis Batch: 161793**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 161660**

**Analyte**

**MB Result**

**MB Qualifier**

**RL**

**MDL**

**Unit**

**D**

**Prepared**

**Analyzed**

**Dil Fac**

Sulfide, Reactive

14.0

U

50.0

14.0

mg/Kg

05/05/15 07:50

05/06/15 11:18

1

**Lab Sample ID: LCS 600-161660/3-A**

**Matrix: Waste**

**Analysis Batch: 161793**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 161660**

**Analyte**

**Spike Added**

**LCS Result**

**LCS Qualifier**

**Unit**

**D**

**%Rec.**

**Limits**

Sulfide, Reactive

1010

1400

mg/Kg

139

0 - 200

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC  
 Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

**Lab Sample ID: 600-110761-2 MS**

**Matrix: Solid**

**Analysis Batch: 161793**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 161660**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	RPD	Limit
Sulfide, Reactive	13.9	U	1000	1196		mg/Kg	119	0 - 200		

**Lab Sample ID: 600-110761-2 DU**

**Matrix: Solid**

**Analysis Batch: 161793**

**Client Sample ID: OT 25563-04292015**

**Prep Type: Total/NA**

**Prep Batch: 161660**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Sulfide, Reactive	13.9	U	13.9	U	mg/Kg		NC	20

## Method: 9040B - pH

**Lab Sample ID: LCS 600-161836/1**

**Matrix: Waste**

**Analysis Batch: 161836**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	Limit
pH	7.00	7.010		SU	100	99 - 101		

**Lab Sample ID: 600-110761-1 DU**

**Matrix: Waste**

**Analysis Batch: 161836**

**Client Sample ID: VB 25147-04292015**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	6.82		6.840		SU		0.3	1

## Method: D240-87 - Heat of Combustion

**Lab Sample ID: MB 600-161828/1**

**Matrix: Waste**

**Analysis Batch: 161828**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BTU	500	U	500	500	BTU/lb			05/06/15 13:15	1

**Lab Sample ID: LCS 600-161828/2**

**Matrix: Waste**

**Analysis Batch: 161828**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	Limit
BTU	11400	11260		BTU/lb	99	90 - 110		

**Lab Sample ID: 600-110761-1 DU**

**Matrix: Waste**

**Analysis Batch: 161828**

**Client Sample ID: VB 25147-04292015**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
BTU	500	U	500	U	BTU/lb		NC	20

TestAmerica Houston

# QC Sample Results

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . Houston

TestAmerica Job ID: 600-110761-1

## Method: D92 - Flashpoint

**Lab Sample ID: MB 600-161707/1**

**Matrix: Solid**

**Analysis Batch: 161707**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>186		1.00	1.00	Degrees F			05/05/15 11:00	1

**Lab Sample ID: LCS 600-161707/2**

**Matrix: Solid**

**Analysis Batch: 161707**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Flashpoint	81.0	80.00		Degrees F	99	96.9 - 103.	1 09

**Lab Sample ID: 600-110761-2 DU**

**Matrix: Solid**

**Analysis Batch: 161707**

**Client Sample ID: OT 25563-04292015**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	>212		>212		Degrees F		NC	20

# QC Association Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## GC/MS VOA

### Leach Batch: 140684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	1311	
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	1311	
600-110761-1 MSD	VB 25147-04292015	TCLP	Waste	1311	

### Leach Batch: 140697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	TCLP	Solid	1311	
LB 180-140697/2-A	Method Blank	TCLP	Solid	1311	

### Analysis Batch: 140820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	8260B	140684
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	8260B	140684
600-110761-1 MSD	VB 25147-04292015	TCLP	Waste	8260B	140684
600-110761-2	OT 25563-04292015	TCLP	Solid	8260B	140697
LB 180-140697/2-A	Method Blank	TCLP	Solid	8260B	140697
LCS 180-140820/10	Lab Control Sample	Total/NA	Solid	8260B	

### Analysis Batch: 161354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	Total/NA	Solid	8260B	161373
LCS 600-161354/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-161354/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-161354/6	Method Blank	Total/NA	Solid	8260B	

### Prep Batch: 161373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	Total/NA	Solid	5030B	

### Prep Batch: 161469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	5030B	
LCS 600-161469/1-A	Lab Control Sample	Total/NA	Waste	5030B	
LCSD 600-161469/2-A	Lab Control Sample Dup	Total/NA	Waste	5030B	
MB 600-161469/3-A	Method Blank	Total/NA	Waste	5030B	

### Analysis Batch: 161470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	8260B	161469
LCS 600-161469/1-A	Lab Control Sample	Total/NA	Waste	8260B	161469
LCSD 600-161469/2-A	Lab Control Sample Dup	Total/NA	Waste	8260B	161469
MB 600-161469/3-A	Method Blank	Total/NA	Waste	8260B	161469

## GC/MS Semi VOA

### Leach Batch: 161428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	1311	
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	1311	
LB 600-161428/1-E	Method Blank	TCLP	Waste	1311	

TestAmerica Houston

# QC Association Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## GC/MS Semi VOA (Continued)

### Leach Batch: 161430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	TCLP	Solid	1311	
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	1311	
LB 600-161430/1-D	Method Blank	TCLP	Solid	1311	

### Prep Batch: 161476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	Total/NA	Solid	3546	
LCS 600-161476/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 600-161476/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 161542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	Total/NA	Solid	8270C	161476
LCS 600-161476/2-A	Lab Control Sample	Total/NA	Solid	8270C	161476
LCS 600-161557/2-A	Lab Control Sample	Total/NA	Solid	8270C	161557
MB 600-161476/1-A	Method Blank	Total/NA	Solid	8270C	161476
MB 600-161557/1-A	Method Blank	Total/NA	Solid	8270C	161557

### Prep Batch: 161557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	3510C	161428
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	3510C	161428
600-110761-2	OT 25563-04292015	TCLP	Solid	3510C	161430
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	3510C	161430
LB 600-161428/1-E	Method Blank	TCLP	Waste	3510C	161428
LB 600-161430/1-D	Method Blank	TCLP	Solid	3510C	161430
LCS 600-161557/2-A	Lab Control Sample	Total/NA	Solid	3510C	
MB 600-161557/1-A	Method Blank	Total/NA	Solid	3510C	

### Analysis Batch: 161632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	8270C	161557
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	8270C	161557
600-110761-2	OT 25563-04292015	TCLP	Solid	8270C	161557
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	8270C	161557
LB 600-161428/1-E	Method Blank	TCLP	Waste	8270C	161557
LB 600-161430/1-D	Method Blank	TCLP	Solid	8270C	161557

### Prep Batch: 161646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	3580A	
LCS 600-161646/2-A	Lab Control Sample	Total/NA	Waste	3580A	
MB 600-161646/1-A	Method Blank	Total/NA	Waste	3580A	

### Analysis Batch: 161738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	8270C	161646
LCS 600-161646/2-A	Lab Control Sample	Total/NA	Waste	8270C	161646
MB 600-161646/1-A	Method Blank	Total/NA	Waste	8270C	161646

TestAmerica Houston

# QC Association Summary

Client: CB&I Federal Services LLC  
Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## GC Semi VOA

### Analysis Batch: 161459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1 - DL	VB 25147-04292015	Total/NA	Waste	TX 1005	161473
600-110761-2 - DL	OT 25563-04292015	Total/NA	Solid	TX 1005	161473
LCS 600-161473/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	161473
LCSD 600-161473/3-A	Lab Control Sample Dup	Total/NA	Solid	TX 1005	161473
MB 600-161473/1-A	Method Blank	Total/NA	Solid	TX 1005	161473

### Prep Batch: 161473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1 - DL	VB 25147-04292015	Total/NA	Waste	TX_1005_S_Pre	
600-110761-2 - DL	OT 25563-04292015	Total/NA	Solid	TX_1005_S_Pre	
LCS 600-161473/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Pre	
LCSD 600-161473/3-A	Lab Control Sample Dup	Total/NA	Solid	TX_1005_S_Pre	
MB 600-161473/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Pre	

## Metals

### Leach Batch: 161428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	1311	
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	1311	
LB 600-161428/1-B	Method Blank	TCLP	Waste	1311	
LB 600-161428/1-D	Method Blank	TCLP	Waste	1311	

### Leach Batch: 161430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	TCLP	Solid	1311	
600-110761-2 DU	OT 25563-04292015	TCLP	Solid	1311	
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	1311	
LB 600-161430/1-B	Method Blank	TCLP	Solid	1311	
LB 600-161430/1-C	Method Blank	TCLP	Solid	1311	

### Prep Batch: 161486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	3010A	161428
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	3010A	161428
600-110761-2	OT 25563-04292015	TCLP	Solid	3010A	161430
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	3010A	161430
LB 600-161428/1-B	Method Blank	TCLP	Waste	3010A	161428
LB 600-161430/1-B	Method Blank	TCLP	Solid	3010A	161430
LCS 600-161486/2-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 600-161486/1-A	Method Blank	Total/NA	Solid	3010A	

### Prep Batch: 161554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	7470A	161428
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	7470A	161428
600-110761-2	OT 25563-04292015	TCLP	Solid	7470A	161430

TestAmerica Houston

# QC Association Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Metals (Continued)

### Prep Batch: 161554 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2 DU	OT 25563-04292015	TCLP	Solid	7470A	161430
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	7470A	161430
LB 600-161428/1-D	Method Blank	TCLP	Waste	7470A	161428
LB 600-161430/1-C	Method Blank	TCLP	Solid	7470A	161430
LCS 600-161554/8-A ^50	Lab Control Sample	Total/NA	Solid	7470A	
MB 600-161554/7-A	Method Blank	Total/NA	Solid	7470A	

### Analysis Batch: 161590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	6010B	161486
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	6010B	161486
600-110761-2	OT 25563-04292015	TCLP	Solid	6010B	161486
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	6010B	161486
LB 600-161428/1-B	Method Blank	TCLP	Waste	6010B	161486
LB 600-161430/1-B	Method Blank	TCLP	Solid	6010B	161486
LCS 600-161486/2-A	Lab Control Sample	Total/NA	Solid	6010B	161486
MB 600-161486/1-A	Method Blank	Total/NA	Solid	6010B	161486

### Analysis Batch: 161601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	TCLP	Waste	7470A	161554
600-110761-1 MS	VB 25147-04292015	TCLP	Waste	7470A	161554
600-110761-2	OT 25563-04292015	TCLP	Solid	7470A	161554
600-110761-2 DU	OT 25563-04292015	TCLP	Solid	7470A	161554
600-110761-2 MS	OT 25563-04292015	TCLP	Solid	7470A	161554
LB 600-161428/1-D	Method Blank	TCLP	Waste	7470A	161554
LB 600-161430/1-C	Method Blank	TCLP	Solid	7470A	161554
LCS 600-161554/8-A ^50	Lab Control Sample	Total/NA	Solid	7470A	161554
MB 600-161554/7-A	Method Blank	Total/NA	Solid	7470A	161554

### Prep Batch: 161765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	Total/NA	Solid	7471A	
LCSSRM 600-161765/8-A ^5	Lab Control Sample	Total/NA	Solid	7471A	
MB 600-161765/7-A	Method Blank	Total/NA	Solid	7471A	

### Analysis Batch: 161784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-2	OT 25563-04292015	Total/NA	Solid	7471A	161765
LCSSRM 600-161765/8-A ^5	Lab Control Sample	Total/NA	Solid	7471A	161765
MB 600-161765/7-A	Method Blank	Total/NA	Solid	7471A	161765

### Prep Batch: 161855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	7471A	
LCSSRM 600-161855/8-A ^5	Lab Control Sample	Total/NA	Waste	7471A	
MB 600-161855/7-A	Method Blank	Total/NA	Waste	7471A	

### Analysis Batch: 161889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	7471A	161855

TestAmerica Houston

# QC Association Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . - Houston

TestAmerica Job ID: 600-110761-1

## Metals (Continued)

### Analysis Batch: 161889 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 600-161855/8-A ^5	Lab Control Sample	Total/NA	Waste	7471A	161855
MB 600-161855/7-A	Method Blank	Total/NA	Waste	7471A	161855

### Prep Batch: 245971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	3051A	7
600-110761-2	OT 25563-04292015	Total/NA	Solid	3051A	8
600-110761-2 MS	OT 25563-04292015	Total/NA	Solid	3051A	9
600-110761-2 MSD	OT 25563-04292015	Total/NA	Solid	3051A	10
LCS 490-245971/2-A	Lab Control Sample	Total/NA	Solid	3051A	11
LCSD 490-245971/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	12
MB 490-245971/1-A	Method Blank	Total/NA	Solid	3051A	13

### Analysis Batch: 246253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	6010B	245971
600-110761-2	OT 25563-04292015	Total/NA	Solid	6010B	245971
600-110761-2 MS	OT 25563-04292015	Total/NA	Solid	6010B	245971
600-110761-2 MSD	OT 25563-04292015	Total/NA	Solid	6010B	245971
LCS 490-245971/2-A	Lab Control Sample	Total/NA	Solid	6010B	245971
LCSD 490-245971/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	245971
MB 490-245971/1-A	Method Blank	Total/NA	Solid	6010B	245971

## General Chemistry

### Analysis Batch: 115569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	D1796	
600-110761-2	OT 25563-04292015	Total/NA	Solid	D1796	

### Prep Batch: 161660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	7.3.4	
600-110761-2	OT 25563-04292015	Total/NA	Solid	7.3.4	
600-110761-2 DU	OT 25563-04292015	Total/NA	Solid	7.3.4	
600-110761-2 MS	OT 25563-04292015	Total/NA	Solid	7.3.4	
600-110761-2 MS	OT 25563-04292015	Total/NA	Solid	7.3.4	
LCS 600-161660/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	
LCS 600-161660/3-A	Lab Control Sample	Total/NA	Waste	7.3.4	
MB 600-161660/1-A	Method Blank	Total/NA	Waste	7.3.4	

### Analysis Batch: 161707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	1010	
600-110761-2	OT 25563-04292015	Total/NA	Solid	D92	
600-110761-2 DU	OT 25563-04292015	Total/NA	Solid	D92	
LCS 600-161707/2	Lab Control Sample	Total/NA	Solid	D92	
MB 600-161707/1	Method Blank	Total/NA	Solid	D92	

# QC Association Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## General Chemistry (Continued)

### Analysis Batch: 161725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	9012	161660
600-110761-2	OT 25563-04292015	Total/NA	Solid	9012	161660
600-110761-2 DU	OT 25563-04292015	Total/NA	Solid	9012	161660
600-110761-2 MS	OT 25563-04292015	Total/NA	Solid	9012	161660
LCS 600-161660/2-A	Lab Control Sample	Total/NA	Solid	9012	161660
MB 600-161660/1-A	Method Blank	Total/NA	Waste	9012	161660

### Analysis Batch: 161793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	9034	161660
600-110761-2	OT 25563-04292015	Total/NA	Solid	7.4.4	161660
600-110761-2 DU	OT 25563-04292015	Total/NA	Solid	9034	161660
600-110761-2 MS	OT 25563-04292015	Total/NA	Solid	9034	161660
LCS 600-161660/3-A	Lab Control Sample	Total/NA	Waste	9034	161660
MB 600-161660/1-A	Method Blank	Total/NA	Waste	9034	161660

### Analysis Batch: 161828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	D240-87	161660
600-110761-1 DU	VB 25147-04292015	Total/NA	Waste	D240-87	161660
LCS 600-161828/2	Lab Control Sample	Total/NA	Waste	D240-87	161660
MB 600-161828/1	Method Blank	Total/NA	Waste	D240-87	161660

### Analysis Batch: 161836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	9040B	161660
600-110761-1 DU	VB 25147-04292015	Total/NA	Waste	9040B	161660
600-110761-2	OT 25563-04292015	Total/NA	Solid	9045C	161660
LCS 600-161836/1	Lab Control Sample	Total/NA	Waste	9040B	161660

### Prep Batch: 179438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	9023	179438
600-110761-2	OT 25563-04292015	Total/NA	Solid	9023	179438
LCS 240-179438/4-A	Lab Control Sample	Total/NA	Solid	9023	179438
MB 240-179438/3-A	Method Blank	Total/NA	Solid	9023	179438

### Analysis Batch: 179606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-110761-1	VB 25147-04292015	Total/NA	Waste	9023	179438
600-110761-2	OT 25563-04292015	Total/NA	Solid	9023	179438
LCS 240-179438/4-A	Lab Control Sample	Total/NA	Solid	9023	179438
MB 240-179438/3-A	Method Blank	Total/NA	Solid	9023	179438

# Lab Chronicle

Client: CB&I Federal Services LLC  
 Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: VB 25147-04292015**

**Lab Sample ID: 600-110761-1**

**Matrix: Waste**

**Date Collected: 04/29/15 13:10**

**Date Received: 04/29/15 18:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	140684	05/06/15 08:21	SLM	TAL PIT
TCLP	Analysis	8260B		1	0.125 mL	5 mL	140820	05/07/15 13:06	PJJ	TAL PIT
Total/NA	Prep	5030B			1 g	10 mL	161469	05/01/15 10:30	KLV	TAL HOU
Total/NA	Analysis	8260B		1	1 g	10 mL	161470	05/01/15 18:15	KLV	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	161428	04/30/15 17:26	RT1	TAL HOU
TCLP	Prep	3510C			200 mL	1.0 mL	161557	05/04/15 08:47	SMB	TAL HOU
TCLP	Analysis	8270C		10	200 mL	1.0 mL	161632	05/05/15 12:22	KP1	TAL HOU
Total/NA	Prep	3580A			1.06 g	10.0 mL	161646	05/05/15 10:46	RLK	TAL HOU
Total/NA	Analysis	8270C		10	1.06 g	10.0 mL	161738	05/06/15 10:47	KP1	TAL HOU
Total/NA	Prep	TX_1005_S_Prep	DL		10.00 g	10.00 mL	161473	05/01/15 10:58	NVP	TAL HOU
Total/NA	Analysis	TX 1005	DL	50	10.00 g	10.00 mL	161459	05/01/15 17:19	RJV	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	161428	04/30/15 17:26	RT1	TAL HOU
TCLP	Prep	3010A			5 mL	50 mL	161486	05/01/15 12:32	NER	TAL HOU
TCLP	Analysis	6010B		1	5 mL	50 mL	161590	05/04/15 12:40	DCL	TAL HOU
Total/NA	Prep	3051A			0.506 g	100 mL	245971	05/05/15 14:50	ZLN	TAL NSH
Total/NA	Analysis	6010B		1	0.506 g	100 mL	246253	05/06/15 11:00	ADN	TAL NSH
TCLP	Leach	1311			1.0 g	1.0 mL	161428	04/30/15 17:26	RT1	TAL HOU
TCLP	Prep	7470A			4 mL	40 mL	161554	05/04/15 08:20	SCG	TAL HOU
TCLP	Analysis	7470A		1	4 mL	40 mL	161601	05/04/15 12:56	SCG	TAL HOU
Total/NA	Prep	7471A			0.63 g	50 mL	161855	05/07/15 07:42	SCG	TAL HOU
Total/NA	Analysis	7471A		1	0.63 g	50 mL	161889	05/07/15 10:18	SCG	TAL HOU
Total/NA	Analysis	1010		1			161707	05/05/15 11:00	MJB	TAL HOU
Total/NA	Prep	7.3.4			10.09 g	250 mL	161660	05/05/15 07:50	MJB	TAL HOU
Total/NA	Analysis	9012		1	10.09 g	250 mL	161725	05/05/15 16:45	EAS	TAL HOU
Total/NA	Prep	9023			1.95 g	10 mL	179438	05/06/15 05:29	TPH	TAL CAN
Total/NA	Analysis	9023		1	1.95 g	10 mL	179606	05/06/15 09:39	TPH	TAL CAN
Total/NA	Prep	7.3.4			10.09 g	250 mL	161660	05/05/15 07:50	MJB	TAL HOU
Total/NA	Analysis	9034		1	10.09 g	250 mL	161793	05/06/15 11:18	EAS	TAL HOU
Total/NA	Analysis	9040B		1		20 mL	161836	05/06/15 13:15	MJB	TAL HOU
Total/NA	Analysis	D1796		1	50 mL	50 mL	115569	05/06/15 14:30	EDR	TAL CC
Total/NA	Analysis	D240-87		1			161828	05/06/15 13:15	KRD	TAL HOU

**Client Sample ID: OT 25563-04292015**

**Lab Sample ID: 600-110761-2**

**Matrix: Solid**

**Date Collected: 04/29/15 13:37**

**Date Received: 04/29/15 18:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			25.00 g	500 mL	140697	05/06/15 09:12	SLM	TAL PIT
TCLP	Analysis	8260B		1	0.125 mL	5 mL	140820	05/07/15 12:38	PJJ	TAL PIT
Total/NA	Prep	5030B			5.15 g	5 mL	161373	04/30/15 11:18	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5.15 g	5 mL	161354	04/30/15 16:05	WS1	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	161430	04/30/15 17:30	RT1	TAL HOU
TCLP	Prep	3510C			200 mL	1.0 mL	161557	05/04/15 08:47	SMB	TAL HOU

TestAmerica Houston

# Lab Chronicle

Client: CB&I Federal Services LLC  
 Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

**Client Sample ID: OT 25563-04292015**

**Lab Sample ID: 600-110761-2**

**Date Collected: 04/29/15 13:37**

**Matrix: Solid**

**Date Received: 04/29/15 18:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	8270C		1	200 mL	1.0 mL	161632	05/05/15 13:26	KP1	TAL HOU
Total/NA	Prep	3546			15.03 g	3.0 mL	161476	05/01/15 11:21	EAT	TAL HOU
Total/NA	Analysis	8270C		20	15.03 g	3.0 mL	161542	05/04/15 14:05	KP1	TAL HOU
Total/NA	Prep	TX_1005_S_Prep	DL		10.03 g	10.00 mL	161473	05/01/15 10:58	NVP	TAL HOU
Total/NA	Analysis	TX 1005	DL	50	10.03 g	10.00 mL	161459	05/01/15 17:51	RJV	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	161430	04/30/15 17:30	RT1	TAL HOU
TCLP	Prep	3010A			5 mL	50 mL	161486	05/01/15 12:32	NER	TAL HOU
TCLP	Analysis	6010B		1	5 mL	50 mL	161590	05/04/15 13:10	DCL	TAL HOU
Total/NA	Prep	3051A			0.499 g	100 mL	245971	05/05/15 14:50	ZLN	TAL NSH
Total/NA	Analysis	6010B		1	0.499 g	100 mL	246253	05/06/15 10:38	ADN	TAL NSH
TCLP	Leach	1311			1.0 g	1.0 mL	161430	04/30/15 17:30	RT1	TAL HOU
TCLP	Prep	7470A			40 mL	40 mL	161554	05/04/15 08:20	SCG	TAL HOU
TCLP	Analysis	7470A		1	40 mL	40 mL	161601	05/04/15 13:11	SCG	TAL HOU
Total/NA	Prep	7471A			0.60 g	50 mL	161765	05/06/15 09:43	SCG	TAL HOU
Total/NA	Analysis	7471A		10	0.60 g	50 mL	161784	05/06/15 11:29	SCG	TAL HOU
Total/NA	Prep	7.3.4			10.06 g	250 mL	161660	05/05/15 07:50	MJB	TAL HOU
Total/NA	Analysis	7.4.4		1	10.06 g	250 mL	161793	05/06/15 11:18	EAS	TAL HOU
Total/NA	Prep	7.3.4			10.06 g	250 mL	161660	05/05/15 07:50	MJB	TAL HOU
Total/NA	Analysis	9012		1	10.06 g	250 mL	161725	05/05/15 16:45	EAS	TAL HOU
Total/NA	Prep	9023			1.97 g	10 mL	179438	05/06/15 05:30	TPH	TAL CAN
Total/NA	Analysis	9023		1	1.97 g	10 mL	179606	05/06/15 09:52	TPH	TAL CAN
Total/NA	Analysis	9045C		1		20 mL	161836	05/06/15 13:15	MJB	TAL HOU
Total/NA	Analysis	D1796		1	50 mL	50 mL	115569	05/06/15 14:30	EDR	TAL CC
Total/NA	Analysis	D92		1			161707	05/05/15 11:00	MJB	TAL HOU

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Certification Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-15
The following analytes are included in this report, but certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
7.4.4	7.3.4	Solid	Sulfide, Reactive	
8260B	5030B	Solid	1,2-Dichloroethene, Total	
8260B	5030B	Waste	1,2-Dichloroethene, Total	
9012	7.3.4	Solid	Cyanide, Reactive	
9012	7.3.4	Waste	Cyanide, Reactive	
9034	7.3.4	Waste	Sulfide, Reactive	
D240-87		Waste	BTU	
D92		Solid	Flashpoint	
TX 1005	TX_1005_S_Prep	Solid	>C12-C28	
TX 1005	TX_1005_S_Prep	Solid	>C28-C35	
TX 1005	TX_1005_S_Prep	Solid	C6-C12	
TX 1005	TX_1005_S_Prep	Waste	>C12-C28	
TX 1005	TX_1005_S_Prep	Waste	>C28-C35	
TX 1005	TX_1005_S_Prep	Waste	C6-C12	

## Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-15
Florida	NELAP	4	E87225	06-30-15 *
Georgia	State Program	4	N/A	06-30-15 *
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	05-31-15 *
Kentucky (UST)	State Program	4	58	06-30-15 *
Kentucky (WW)	State Program	4	98016	12-31-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15 *
New York	NELAP	2	10975	03-31-16 *
Ohio VAP	State Program	5	CL0024	10-31-15
Oregon	NELAP	10	4062	02-23-16
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-16
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-15

## Laboratory: TestAmerica Corpus Christi

The certifications listed below are applicable to this report.

\* Certification renewal pending - certification considered valid.

TestAmerica Houston

# Certification Summary

Client: CB&I Federal Services LLC

Project/Site: CB&I Federal Services LLC . . . Houston

TestAmerica Job ID: 600-110761-1

## Laboratory: TestAmerica Corpus Christi (Continued)

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704210	03-31-16

## Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704077	08-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6010B	3051A	Solid	Sulfur
6010B	3051A	Waste	Sulfur

## Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-16
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	05-31-15 *
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-16
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-16
North Carolina (WW/SW)	State Program	4	434	12-31-15
Pennsylvania	NELAP	3	02-00416	04-30-16
South Carolina	State Program	4	89014	04-30-15 *
Texas	NELAP	6	T104704528	03-31-16
US Fish & Wildlife	Federal		LE94312A-1	11-30-15
USDA	Federal		P-Soil-01	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-15
West Virginia DEP	State Program	3	142	01-31-16
Wisconsin	State Program	5	998027800	08-31-15

\* Certification renewal pending - certification considered valid.

TestAmerica Houston

310 Rothway Street

**310 Rothway Street**  
Austin, TX 77040  
**512-444-5646**

### **Chain of Custody Record**

TestAmerica.com

Houston, TX 77040

Sample <sup>Loc: 600</sup> Checklist

110761

JOB NUMBER: \_\_\_\_\_

Date/Time Received: \_\_\_\_\_

15APR29 1800  
8

CLIENT: \_\_\_\_\_

CB1

UNPACKED BY: \_\_\_\_\_

CARRIER/DRIVER: \_\_\_\_\_

Apple

Custody Seal Present:

 YES     NO

Number of Coolers Received: \_\_\_\_\_

1

Cooler ID	Temp Blank	No Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
B6	Y / N	Y / N	3.6	591	-1	3.5
	Y / N	Y / N				
	Y / N	Y / N				
	X / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?  YES     NOLABORATORY PRESERVATION OF SAMPLES REQUIRED:  NO     YESBase samples are >pH 12:  YES     NO      Acid preserved are <pH 2:  YES     NO

pH paper Lot #: \_\_\_\_\_

VOA headspace acceptable (5-6mm):  YES     NO     NA

YES    NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:


228801

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

SIGNATURE

4/26/15

DATE

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

228801

Custody Seal

SIGNATURE

4/26/15

DATE

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

228800

5/11/2015

Custody Seal

TestAmerica

228800

THE LEADER IN ENVIRONMENTAL TESTING

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number: 110761**

**List Source: TestAmerica Houston**

**List Number: 1**

**Creator: Capps, Dana R**

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.	6
The cooler's custody seal, if present, is intact.	True		7
Sample custody seals, if present, are intact.	True		8
The cooler or samples do not appear to have been compromised or tampered with.	True		9
Samples were received on ice.	True		10
Cooler Temperature is acceptable.	True		11
Cooler Temperature is recorded.	True	3.5	12
COC is present.	True		13
COC is filled out in ink and legible.	True		14
COC is filled out with all pertinent information.	True		
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	False	Sample splitting required for subcontract purposes.	
Residual Chlorine Checked.	N/A	Check done at department level as required.	

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number:** 110761

**List Source:** TestAmerica Corpus Christi

**List Number:** 5

**List Creation:** 05/05/15 12:05 PM

**Creator:** Gilmore, Matthew

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number:** 110761

**List Source:** TestAmerica Corpus Christi

**List Number:** 6

**List Creation:** 05/05/15 12:05 PM

**Creator:** Gilmore, Matthew

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number:** 110761

**List Source:** TestAmerica Nashville

**List Number:** 2

**List Creation:** 05/05/15 10:13 AM

**Creator:** Armstrong, Daniel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number:** 110761

**List Source:** TestAmerica Nashville

**List Number:** 3

**List Creation:** 05/05/15 10:14 AM

**Creator:** Armstrong, Daniel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number:** 110761

**List Number:** 7

**Creator:** Watson, Debbie

**List Source:** TestAmerica Pittsburgh

**List Creation:** 05/05/15 01:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: CB&I Federal Services LLC

Job Number: 600-110761-1

**Login Number:** 110761

**List Number:** 8

**Creator:** Watson, Debbie

**List Source:** TestAmerica Pittsburgh

**List Creation:** 05/05/15 01:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	